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ABSTRACT

Featuring 11 articles of original research, this collection presents selected works from the proceedings of the ninth Annual Communications Research Symposium. Following are the titles and authors of the articles included: (1) "Issues in Inferring Media Effects from Surveys" (S. H. Chaffee); (2) "Expectancy Value Theory and Multidimensional Scaling: Audience Perceptions of Campaign Coverage" (R. E. Hurd; M. M. Miller); (3) "The Coorientation Model as a Measure of Organizational Image" (N. Browning); (4) "Voluntary Censorship: Government Control of Information during World War II" (G. C. Johnson); (5) "Effects of Film Criticism on Audience Interest, Attendance, and Evaluation" (D. P. Badger); (6) "Patterns of Consumer Interest in Specialized News" (T. Blick; H. H. Howard; J. P. Quarles); (7) "Dogmatism and Intrinsic Religious Orientation as Predictors of Good News/Bad News Preference" (J. L. Hoyer); (8) "Galileo Methodology in Planning Information Campaigns for Recruiting Students to the College of Communications" (E. L. Brannon; M. M. Miller); (9) "What Can Be Learned from a Secret Newsletter about a Secret Army Detachment in a Secret City in Tennessee" (J. N. Adamson); (10) "10, 9, 8, 7.....Ranked Criteria Important in Leading University Journalism Programs" (R. C. Kochersberger, Jr.); and (11) "Professionalism and Page-One Content of Tennessee Dailies" (M. W. Singletary; N. Turgeon). (JD)

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SELECTED WORKS

FROM THE PROCEEDINGS OF THE

NINTH ANNUAL

COMMUNICATIONS RESEARCH SYMPOSIUM

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Preface

The Ninth Annual Communications Research Symposium was held April 10-11, 1986, at The University of Tennessee, Knoxville. The Symposium is a kind of local showcase for student and faculty research. The symposium this year featured 13 articles of original research, 8 of them authored or co-authored by students. Three articles are not included in these Proceedings due to other publication requirements. The research represented a wide variety of interests.

The keynote speaker was Prof. Steven H. Chaffee of Stanford University. His address is reproduced as the lead article in the Proceedings. We are grateful to Dr. Chaffee for visiting with us and for contributing to the success of the Symposium.

We also want to thank Dr. Mark Miller, who led the cheers and did the urging for our student contributors, and who also contributed heavily to the presentations. Also, we appreciate the fact that three recent Ph.D. students (Robert Hurd, Robert Kochersberger, Ned Browning) returned to Tennessee to present their research.

Finally, our thanks to all the others who worked nights and weekends to assure the completion of their research for presentation to the symposium. They have joined the systematic search for truth.

Michael W. Singletary
Symposium Chair
College of Communications
April, 1986

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ISSUES IN INFERRING MEDIA EFFECTS FROM SURVEYS

Steven H. Chaffee, University of Wisconsin-Madison

From the pioneering studies of Paul Lazarsfeld [2, 14] on, the sample survey via personal interview has provided most of the data from which our knowledge of effects of mass communication has been constructed. That body of knowledge falls considerably short of perfection, partly because the survey method itself involves many imperfections. I will be discussing here some of the problems of survey research that have special implications for the study of communication.

At the same time, though, I will argue that we cannot simply blame the method. Media effects analysis is lacking also in theoretical development, and for that the fault lies in ourselves. I am not referring here to theory in some lofty, abstract sense, but rather to the intellectual task of specifying exactly what it is we think is happening when we speak of an "effect of communication"--and just how we expect that process to manifest itself in empirical data from a field survey.

I am, if you will, applying the journalist's credo of clarity to the writing of empirical theory. It is my contention that we can do much more with the admittedly flawed survey method if we take greater care in spelling out what we are trying to find out with it. I will pursue this theme by introducing some methodological distinctions that I've found useful, and some examples of research I've been involved in at Wisconsin and Stanford the past few years.

I will touch on three major steps in the survey research process: sampling, data collection or measurement, and data analysis and interpretation. In each area, I will not dwell on the standard topics:

the need for large, random samples; for valid and reliable, non-reactive measures; and for rigorous statistical manipulations. Those are truisms at best, and impossibilities if we examine them pragmatically. We can spend our time here more productively by considering how we can render an inherently problematic method more useful, rather than berate it for falling short of someone's impossible dream.

Let me set out at least a preliminary definition of the phenomenon of interest; what constitutes an "effect" of mass communication, or of media? Roughly, this term refers to a change in people that can be traced to a communication cause. The hope is that the essential traces can be found by interviewing some of the people who have been involved in the change. Both terms, people and change, require clear conceptualization before we can move very far in our tracing.

Empirical research requires variance, and we need to distinguish clearly between two different kinds of variance. A sample survey at the least produces cross-sectional variance, which is to say evidence of differences among a number of people at a given time. Less often surveys are also designed to produce process variance, which consists of changes in the same person from one time to another. Given our preliminary definition of a communication effect (above), it might seem that it requires process variance as evidence. That is, if people don't change, there would be no effect. It is ironic that most survey evidence offered on behalf of media effects theories consists instead of cross-sectional variance.

But there is another kind of variance that is also relevant to effects analysis, and it is this concept that makes survey evidence

more useful to us. To introduce it we must be more explicit about what we mean by the term "people" in our definition. The two general meanings we need to distinguish are people as individuals and people as aggregates. These are two quite different levels of analysis, but both are embraced by survey research. The same survey can be treated as a set of measures of individual differences, and of the aggregate or population that the total sample represents.

It is possible, then, to have both cross-sectional and process variance at both levels, the individual and the aggregate. My previous description of these two kinds of variance was cast at the level of the individual. Aggregate cross-sectional variance is approximately what is meant by the term "comparative" research; surveys are used to compare, say, two different countries or a set of communities, organizations, or other supra-individual level entities.

There are quite a few examples of cross-sectional survey comparisons of aggregates in the media effects literature, such as the series of studies of community decision making and the role of media in it, done at the University of Minnesota by Phil Tichenor, George Donohue and Clarice Olien [20].

I have also tried this kind of study, in a comparison of one-newspaper cities to competitive newspaper cities, which I did with Donna Wilson [10] as our Bicentennial Bit. We used an aggregate-level dependent variable, the degree of diversity—as measured by the Information Theory statistic for entropy—in people's perceptions of what the "most important problem" was. Our results would have been satisfying to, say, Thomas Jefferson, in that we found as hypothesized that there was more diversity across citizens in the places where there

was also a diversity of viewpoints available in the local media marketplace.

Cross-sectional variance, though, does not satisfy the preliminary requirements I've set out here for media effects analysis, so I will pass—somewhat reluctantly, as I am fond of comparative research—on to the other, more promising concept of variance: aggregate process variance. To distinguish this most clearly from individual process variance, I will define it as change in the aggregate from one time to another independent of change in any individual member of the aggregate. That is, aggregate process variance occurs over time as new members enter the aggregate and old members exit from it.

An example close at hand is the aggregate we call the "freshman class." It is quite likely that this year's freshman class is more conservative politically than last year's, even though no individual member has been becoming more conservative—indeed, I would expect most individual freshmen to be growing somewhat more liberal. Most aggregates do not experience such wholesale turnover annually, but there is evidence [17] that the U.S. electorate has, over the past 35 years, become less party-oriented in politics—almost entirely due to entry of successively much less party-oriented cohorts of younger voters.

When aggregate change without individual change occurs over a long time, it may be more powerful in terms of societal consequences than is individual-level change. When we don't know quite where such change comes from, we call it a "socialization" effect. Then we look at the agencies of socialization, and we find prominent among them our friends, the mass media.

The paticular change I just described—the entry over a 35-year

period of new members of the electorate who have been socialized to successively lesser degrees of political party orientation—is often ascribed to television. I can see some merit in the suggestion, but there are also enough alternative explanations—increasing education levels, mass affluence, the failure of our party system to cope with race relations and the Vietnam war, to cite some obvious possibilities—that I would want better evidence than we have at present before heaping either blame or praise on TV for bringing on the relative demise of our political parties. I will return to the subject in other connections, but for the moment suffice to say that aggregate process variance can be highly important in the study of media effects.

#

The concept of an aggregate leads us directly to a central problem of survey research: What population aggregate does our sample represent? If we are to trace change in the aggregate independently of change within its individual members, the sampling design should clearly be one of successive cross-sections. To trace change in the political leanings of the freshman class, it should be surveyed each year; for the national electorate, perhaps every two or even four years is sufficient. Ideally, each member of these aggregates would have an equal or at least a known probability of being included in the sample at each time. Then the sample data would, within the range of sampling error, allow us to keep track of changes in the aggregate. These might be due to changes in the membership alone, or perhaps to changes in the members—i.e., individual process variance. Successive cross-sectional designs don't allow us to choose between these two explanations.

In any event, the ideal of a series of probability samples drawn from <u>any</u> total population does not exist. Let us state the truth about

sampling in its baldest form: all samples of human beings are "conveience" samples. The term "convenience sample" is a non-technical one, used to describe a survey of people who just happened to be available in the researcher's time and place: students in his classes, people at a workplace or shopping center, those who wrote in response to some occasion, and so forth.

But all communication research survey samples—not just obviously flawed samples—fall somewhere between those totally non-probabilistic procedures and the ideal of random sampling. We sample by convenience those who have telephones, or who will answer them, or who will answer our questions when they do; or we sample by convenience those who have homes and are in them when an interviewer arrives, or who respond to mail solicitations. We sample by convenience those who happen to meet these operational conditions at the particular time we are applying them: the time of day we try to make contact, or the year in which the election of interest is being held, for example, are not representative of all times.

It is easiest to see that all our samples are "of convenience" by considering the kind of sample most often held up as optimal: the U.S. national sample. Even when a loss of money is saved by making convenient arrangements in terms of multistage design, clustering, and limited call-backs, those who have national-sample data to brandish in front of their sheepish colleagues command center stage at our conferences and find it easier to get their papers published and their findings anthologized. Still, the national sample is no less a convenience sample than is a local one—as a rule, it tends to be slightly more so—and except in the case of political surveys the

boundaries of the U.S. are simply another sampling convenience. Few theories of communication processes and effects are bounded by nationhood. They did not expand when Alaska and Hawaii became states, for instance, nor would they shrink in generality if, say, California were to slip off into the Pacific Ocean.

Having said that all samples are of convenience, and not fully representative of the aggregates from which they are purportedly drawn, let me hasten to add that I do not think this matters terribly much. What is important is not that we know precisely what percentage of Democrats read a newspaper yesterday, but that we be able to chart change over time in the number of Democrats and in newspaper reading. We can do this with imperfect samples—which should be reassuring, as there are no other kinds of samples—so long as the method of sampling remains the same. Comparisons over time of successive cross-sectional samples, each with its identical limitations of method, can give us a very good idea of aggregate process variance even though the cross-sectional data themselves may be rather misleading. That is, for communication effects analysis we don't care about cross-sectional variance except as it changes.

The old analogy to the iceberg is apt here. If we only observe that part of the iceberg that appears above water, we will seriously underestimate the cross-sectional size of the iceberg at a given point in time. And yet, if we keep checking and we find that the visible portion is getting smaller by a factor of, say, 1 percent a day, we can quite accurately infer that the total iceberg is shrinking at about this rate. I am not advocating sloppy sampling, but so long as the method is held constant over time we can learn a lot about aggregate

process variance even from data that would be quite misleading if interpreted for cross-sectional purposes.

A few years ago I published a paper with Sun Yuel Choe [5] in which we analyzed data from the national election studies of 1974 and 1976. In 1976, a new cross-section was drawn but there was also an attempt to recontact all those who had been interviewed in 1974. The question we focused on was a simple yes-no item, "Do you read a daily newspaper?" The panel respondents had, on the average, increased their incidence of newspaper reading by about 3 percent over the two years. At the same time, the aggregate as represented by the successive cross-sections had decreased reading by about 2 percent. So individual process variance, which we then attempted to account for in our study, was moving in a net direction precisely the opposite of aggregate process variance. We did not have the data within that study to do much about the latter, but it is clearly more important. The newspaper industry would certainly like to know why its readership is declining, and no amount of analysis of individual variance--process-type, or worse, cross-sectional--is going to answer that question.

Individual cross-sectional variance can, in fact, be especially misleading. For example, we found (as have a hundred other studies) that education and income are the strongest cross-sectional correlates of newspaper reading. But at the aggregate level, while education and income in the U.S. have been steadily climbing for decades, the decline in readership continues. We did find in our panel analysis that change in life situation, such as moving or getting married or finishing school, was associated with change in newspaper habits. Unfortunately, this correlation was non-specific. People who move are about as likely

to stop reading a daily newspaper as to start, for instance. Neither the cross-sectional correlates such as education and income, nor the transitional correlates such as change in demographic condition, accounts adequately for the long-range aggregate decline in newspaper reading. If it represents a media effect—television again comes to mind as a possible culprit—better evidence is needed to document the claim. Can that better evidence come from better surveys?

#

Let us turn to the kinds of questions asked in surveys, in search of a positive answer. The typical field interview is a curious communication arrangement, and as a method of measurement of human behaviors and attributes it rests upon some disturbingly shaky assumptions. We cannot do without it, but we should recognize each of these assumptions and the threats to validity that it opens up.

First, there is a asymmetry to the relationship between the interviewer (I) and the respondent (R). I asks R to answer a set of predetermined questions as best R can. In return, I will refrain from making any judgmental comment on any belief or behavior that R reports. If R wants to ask I a question, the usual procedure is to defer it until the interview proper has ended. The arrangement assumes the following:

1. It is assumed that the question has an answer, preferably a true answer other than "I don't know."
2. It is assumed that R knows, or can find within himself, the correct answer to the question.
3. It is assumed that R has the verbal tools to encode the answer.
4. It is assumed that R will give the answer that he holds internally, rather than some other answer.

Much of what appears to be cross-sectional variance in surveys can be traced to failures, for some kinds of people, of some of these assumptions. For example, people with limited education provide fewer answers to open-ended questions, simply because Assumption #3 does not apply fully to them. People often over-report their reading and under-report their television time, for reasons of social desirability that override Assumption #4. We are generally quite aware of these problems, but not so cognizant of the first two assumptions.

It seems easy to ask people how much time they spend on an average day watching television, but it is in fact very difficult for anyone to answer this question accurately. It sems equally easy to ask how much attention one pays to, say, news about politics, or how interested one is in international affairs. But if we were to ask ourselves these questions, we would find them very difficult to address. Each raises many other questions: "Compared to what, or to whom? How much is a lot? How much is a little? How often are we talking about?"

One of the most celebrated items in media surveys is, "If you got conflicting reports on a news event from newspapers and television, which would you believe?" People have been dutifully responding to this question for years, trying hard to oblige the interviewer with an answer. But I would guess that the correct answer for most of us would be, "I don't know," "It depends," or "Neither, for the moment." Interviewers try hard not to get such indecisive--although valid--responses.

How do these problematics of the question-answer protocol affect media effects research? Not as much as one might fear, insofar as independent variables are concerned. That is, while I doubt that

people can accurately report their media exposure, attention, and other behaviors, I also don't see much evidence that the constant biases in their self-reports create gross misrepresentations of actual media activity. To be sure, constant biases affect the mean—they lead to overestimates of socially desirable behaviors such as reading—and they create a lot of random error that reduces reliability of measurement. But they tend in the main not to affect variance in any systematic fashion.

This is particulary the case when we are working with process variance. Upon repeated measurement, the person tends to become better at answering questions about media behaviors. Estimates of TV time go up in a second interview, I suspect up in the direction of greater accuracy of self-report. Even more reassuring is the fact that across time, media behaviors show extremely high stability in the sense of the relative rankings among people [8, 9]. Those who reported little reading at Time 1 may report even less at Time 2, but then everyone else in the sample is likely to have gone down a little in their reading claims.

The high stability of communication habits over time poses something of a problem for causal analysis, of course. There is no process variance within the individual. This raises another challenge to which I will return.

In the measurement of dependent variables, though, violations of the assumptions (above) can be quite serious, especially when one is attempting to test cause-effect propositions with individual cross-sectional variance. As I've said, these assumptions do not hold as well for some kinds of people as for others. Violation of the same assumption on different items can produce spurious correlations. For

example, Assumption #3, the one involving verbal tools, obviously applies more to educated people than to those less verbose.

More insidious perhaps is Assumption #1, that there is in fact an answer to the question asked. In opinion surveys, we often ask for opinions that do not exist; to help us out, respondents think about the subject and create opinions for the occasion. After that, they may indeed hold these opinions, but they are artifacts of "demand characteristics" of the opinion interview.

Sometimes we make allowance for non-opinion by offering a response alternative that sounds like an opinion and can be chosen by the person who in all honesty lacks one but doesn't want to let us down totally. For example, surveys ask, "In politics, do you consider yourself a Democrat, a Republican, an independent, or something like that?" Usually the research is hoping to find evidence of affiliation with one of the major parties, because political behaviorists long ago found that is a good way to predict the vote. Increasingly, though, people are saying instead that they are "independents" rather than Republicans or Democrats [17].

The question is, what do they mean when they attach this label to themselves? Some mean they are followers of the American Independent Party of George Wallace and Lester Maddox. Others mean that they are fiercely independent, deciding their votes on issues and what they perceive as the personal qualities of candidates rather than mere party affiliation. But many others mean nothing. That is, they aren't Republicans or Democrates, or much of anything when it comes to politics. Indeed, they rarely come to politics unless it forces itself upon them. Now, confronted with an interviewer forcing political questions upon them, they avoid the embarrassment of admitting they

don't much care about the whole business of politics, by taking the easy out that has been proffered. They say, "I'm an independent."

Armed with a theory of media effects, such as the proposition that television is eroding party identification and creating a new nation of independents, researchers can totally misread such a response. Is the heavy viewer of television staunchly independent, as researchers at the University of Pennsylvania [13] seem to suggest? Heavy viewers call themselves "moderate" rather than "liberal" or "conservative"; is that because television has made them into moderates by its bipartisan or non-partisan or anti-partisan content? Perhaps, but it seems at least as plausible that "moderate" really means simply "no, nothing, I'm not a political person," and that this is the correct answer to any question about politics for a lot of people. Those are also the kinds of people one would expect to spend a lot of time watching television, and thus to get classified as "heavy viewers"--the people on whom inferences about TV's effects often rest in cross-sectional surveys.

Process variance can do a lot to correct false interpretations of this sort. If we measure change in the individual over time, the Time-1 value of the dependent variable can be entered as the first independent variable in a regression equation predicting the Time-2 value of the dependent variable. These autocorrelations make very useful controls [11], and in a number of recent studies [e.g., 9] they have removed what would have spuriously appeared to be socially undesirable effects of television news.

#

This brings me to the third phase of survey research I promised to address, data analysis. I want to emphasize here the strategies, rather than the specifics of statistical models, that we might employ

in interpreting survey data. My general rule will be, make the model for analysis fit the form of the theory. Sound simple? Well it's not, and it's a rule that is not often followed.

To decide what model to use for data analysis, we need first to spell out just what our theory is. When it comes to media effects, otherwise careful scholars can be surprisingly imprecise. Let me take an effect that I think exists, and which is not controversial within the research literature: the effect of newspaper reading on political discussion. Specifically, I'll propose that the more one reads a newspaper, the more likely one is to talk about politics with other people.

First, consider what the cross-sectional data matrix would look like for this relationship. Suppose we measure frequency of newspaper reading by the number of days in the past week the person read at least one paper. Similarly, we could measure political discussion in the same terms, number of days talked politics last week. These two measures would generate an 8-by-8 or 64-cell table. My first recommendation would be that you look at this raw, unstandardized cross-tabulation before doing anything "more sophisticated" with the data—that is, before calculating any correlation coefficients or regression equations.

I've never seen exactly that table, but I would bet that what you would find in it would be a great many cases located along the main diagonal—but that this would be overwhelmingly due to the large number that would fall into the first cell of the 64-cell table. That is, many people would score zero on both measures. About one-third of a typical U.S. adult sample has not read a newspaper in the past week, and probably that many also go through most weeks without discussing

politics at all. A lot of them are the same people, so we should find many cases in the nothing-nothing cell. This will produce what appears to be a positive statistical correlation even if there is no relationship between the two variables in the other 63 cells of the table.

What is happening in this slightly fictitious example is much like the error I described earlier, in discussing the implications of violating the first assumption in question-and-answer measurement: The coincidence of two difference forms of nothing is in danger of being taken as evidence of something.

What is meant by a causal proposition linking newspaper reading to political discussion? Is it that the one is necessary to produce the other? The test for that is not whether there are a lot of cases for which both values are zero, but rather that there not be people who discuss politics a lot and yet do not read newspapers.

Is the proposition that the one is sufficient to produce the other? In that case, there would not be people who read newspapers and yet do not discuss politics.

Or is it that the two activities vary together? If that's the hypothesis, then the main test of it should lie in the 7-by-7 matrix, the 49 cells that represent people who at least sometimes read a newspaper and at least sometimes discuss politics. To find a correlation in this matrix of non-zero cases would be equivocal regarding the direction of causation, but at least it would be a clear test of covariance. People who do not read newspapers, or who do not talk about politics, at all should not dominate a data analysis meant to examine the extent of which those two behaviors go up and down together.

#

In causal terms—which is the way a media effects hypothesis is formulated—there should also be some time order. Specifically, the cause should precede its effect. This allows us to put things in their hypothetical order over time, but it doesn't solve for us the problem of what to expect, until we are much clearer about the proposition at stake. Another distinction needs to be made, between a process of change and a stable state of the person. This distinction applies to both the media behavior and its suspected effect.

In the example before us, does the proposition mean that a high level of newspaper reading maintains a high level of discussion? Or is it that an increase in newspaper reading will be followed by an increase in discussion—and perhaps that a decrease in newspaper reading will lead to a decrease in discussion? The approach to testing these, and some of the other possible combinations of states and changes, is through falsification. Paul Lazarsfeld long ago [15] laid out the logic of this problem in the 16-fold table. This table is based upon two variables, each of which can take on two different values, at two different times. The method is problematic in light of today's methodologies, but the idea is useful because it forces us to be explicit about our propositions.

Think, for example, of a 16-fold table in which we have reduced the newspaper and discussion measures to 0-1 dichotomies. People either did or did not read a newspaper "last week," and they either did or did not discuss politics; when we remeasure them "this week," the total set of possibilities can be exhausted by a 2x2x2x2 matrix. Now, suppose the proposition that really interests us is that newspaper reading is necessary to maintaining discussion. That means that we

should find people in the extreme category where the values of both measures were 1 in both weeks, but we should not find people in the category where newspaper reading went from 1 to 0 but discussion stayed at 1. Or suppose we hypothesize that an increase in newspaper reading is sufficient to produce a discussion. This means that we should find people who go from 0 to 1 on both variables, but not people who go from 0 to 1 on reading while remaining at 0 on discussion.

Note here that I am focusing on only a few cells of the 16-fold table, and particularly that none of these propositions invites us to rely much on the 0-0-0-0 cell. I do not recommend using the 16-fold table method to test causal hypotheses. But I do recommend looking at it before proceeding to any more general use of the data. If there are a lot of cases in the all-zeros cell--which is uninteresting at best, and can be terribly misleading if not noted early on--plan further data analysis to get around this situation.

I'm afraid I'm making the radical suggestion that you delete a lot of cases from your sample. This is hard for survey researchers, who pay for every interview, and who tend to brag about their large Ns, to accept. But when it comes to media effects we are rarely if ever theorizing about <u>everyone</u> who might get interviewed in a survey.

Some people won't change, many can't, many long since have. These people can't, therefore, provide process variance. We have to be willing to set those cases aside, and focus our data analysis on the remainder, those who have some possibility of behaving according to our effects theory. Just what that theory is determines which cases are critical to it.

This advice might seem to fly in the face of current statistical models, which assume that all variables are general and extensive, so

that the basic data set is the correlation matrix across all cases. But it is quite possible to organize a data analysis around contingencies such as I've been discussing, and still use the most elaborate models that have been devised. I'll give a couple of examples.

In the evaluation of a public health campaign aimed at smoking [3], we hypothesized that the more campaign messages the person remembered seeing and hearing, the less she would smoke. Our dependent variable was the number of cigarettes smoked per day. We found an overall correlation, but it was quite meaningless because 70 percent of our sample smoked zero cigarettes a day; that is, they were non-smokers and indeed many of them had never smoked. So we broke the analysis down into two parts; in phase 1 we scored smoking 0-1, which is to say we compared non-smokers to smokers in terms of their recall of our campaign messages. Then we discarded all the non-smokers and rescored smoking on a scale of 1 to about 3 packs a day, for the 30 percent of the sample who were really relevant to the campaign effect test.

The willingness to ignore 70 percent of one's hard-earned sample comes less easily when the irrelevance of zero-value cases is less clear. In a study of time of voting decision, though, Choe and I [4] did discard 30 percent of our cases after the first-stage analysis. We started out with a cross-sectional study of voters interviewed just before the 1976 debates between Gerald Ford and Jimmy Carter; this sample was broken into two groups, those who already knew at that time how they would vote, and those who were undecided. In a discriminant analysis, we found that these two groups differed mainly in the degree of political party identification; those who were already decided were also high in campaign media use. But we set them aside, on the

assumption that the campaign could not affect their votes because they had decided before it ever started.

Then, after the debates, we conducted a second comparison, this time between those who were still undecided and those who had made up their minds during the interim since our first interview. We called these two groups, respectively, "last-minute deciders" and "campaign deciders." We were especially interested in the latter group, who turned out to watch the debates and in general follow the campaign on TV--and which was larger in number than either of the other two groups. If we had kept in our analysis the pre-campaign deciders, who were really irrelevant to a study of campaign effects, they would have muddied the statistical picture so that the more important campaign deciders would never have emerged as a distinct category.

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If correlational methods are over-utilized in some respects, they are also under-utilized in others. I'll wind up this part of my discussion with a general proposition about media effects theories: they imply correlations among the dependent variables. That is, we usually think of the media as setting in motion a series of processual events rather than a singular outcome. Classical "learning" theories, for example, presume that the media provide information, which is processed into attitudes, which in turn produce changes in behavior [19]. One can derive a series of hypotheses from such a theory, testing in turn the effects of the media campaign on knowledge, opinions, and actions separately.

But this theoretical reasoning carries with it the assumption that these effects are linked to one another. In a recent study of a public health campaign, Connie Roser and I [7] tested the proposition that the

correlations among knowledge, attitude, and behavior measures would be stronger among people who were more involved in the topic of heart disease. We used Lisrel, a technique that provides estimates of the "true" correlations corrected for unreliability, and found results mostly in line with our theorizing.

This approach would also be the appropriate one, I think, to test George Gerbner's [12] proposition that television "cultivates" a total package of beliefs to its heavy viewers. That is, there should be intercorrelations among heavy viewers, between such belief systems as the "scary world" and sex-role stereotyping, which are not obviously related in real life but are associated with one another on TV.

Another kind of theory is that of indirect effects, a term we hear a lot about but which is rarely defined or even explained very well. The correlational approach to this kind of theory would seem obviously to be the testing of indirect paths, in path analysis. A nice procedure for decomposing direct and indirect causal paths has been worked out [1], and has been applied in several recent media effects studies. For example, Yuko Miyo and I used it [6] to test the age-old hypothesis that selective exposure to campaign communication accounted for the tendency of media to reinforce political predispositions. To the contrary, we found very little indirect effect on the 1980 Wisconsin vote, from precampaign predispositions (party, candidate liking) via a measure of selective exposure to campaign communication; almost all of the effect was direct.

In a very different study, based on U.S. national surveys of people's feelings toward other countries, Chang Keun Lee [16] has been able to document the movement of mainland China out of the Communist bloc in the period 1978-1982. His study is an example of the value of

successive cross-sections of the same aggregate using the same sampling methods. The 1978 and 1982 NORC national samples, even though they doubtless have several biases of convenience built into them--all samples, as I say, do--are comparable. We also assume that media subaudiences within these samples are comparable.

Lee factor-analyzed between-country correlations, which provided his dependent variable. In 1978, ratings of China correlated strongly with those of the Soviet Union and Cuba; Poland, by contrast, showed up on a more "western" factor that included Canada. By 1982, in a new cross-sectional sample, China loaded instead on the second factor along with Poland and Canada. This change represents aggregate process variance of a rather subtle kind.

To test whether this finding could be attributed to the media, Lee then separated his sample according to whether the respondent paid attention to international news. The phenomenon of China moving from the Communist bloc factor to the factor with Poland turned out to to be limited to the high-attention audience; those who weren't following international news were still associating China with Russia and Cuba in 1982.

When we are dealing with individual cross-sectional variance, the need for stringent controls and clear theorizing is even greater than in studies that use process variance. An example is a recent test Xinshu Zhao and I have done [20] of a proposition that has been widely accepted on the basis of a single but well publicized study from 1972. This is the conclusion by Patterson and McClure [18] that television news is not informative but candidate spot commercials on TV are.

The specific comparison by Patterson and McClure had to do with becoming more certain about where the candidates--Richard Nixon and

George McGovern--stood on various issues. They found no correlation between this measure and frequent viewing of network evening news programs. This has led them, and many who have since reviewed the literature on issue knowledge, to dismiss virtually all of TV news as uninformative. They also found that people who watched less than one hour of prime time TV programming--which is where most campaign spots appear--learned less about the issue positions of Nixon and McGovern than did most viewers. On the strength of this evidence, they concluded that advertising can be quite informative, and went on to praise it at some length.

Zhao and I [20] decided to test this more rigorously than a simple bivariate, biserial correlation permits. We controlled statistically for various demographic variables, and for political interest and activity, as has been done in other studies.

But we also controlled for <u>other political knowledge</u>. We were fortunate to have a data set from the 1984 campaign that not only measured voters' perceptions of the issue differences between Ronald Reagan and Walter Mondale--which was our main dependent variable--but also asked about their knowledge of congressional races, who was running from each party, and what the term of office is. These respondents were also asked how much they thought they personally knew about politics. We entered congressional knowledge and self-perceived knowledge as control variables, along with the demographic and political behavior controls. This provided a highly explicit test of the Patterson-McClure hypotheses.

For independent variables we had separate but very similar measures about the likelihood of the person watching news stories and commercials regarding Reagan-Bush and Mondale-Ferraro. The measure for

news stories predicted a significant increment to variance in issue awareness, even with all the other variables including other knowledge controlled. The measure for TV ads did not. Thus our findings were precisely opposite the conclusions reached by Patterson and McClure.

These last few studies help me make a more general point about survey research. One of the advantages of this method is that it allows us to gather a great many measures on the same people. With a little ingenuity we can plan ways of creating sophisticated measures--such as the correlational structure linking a number of presumed media effects--out of relatively crude questionnaire items. With a little more mental effort we can plan data analyses that match our conceptual propositions closely, and test them rigorously. The challenge and the promise of survey studies lie much more in the domain of theory than in the method.

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EXPECTANCY-VALUE THEORY AND MULTIDIMENSIONAL SCALING: AUDIENCE PERCEPTIONS OF CAMPAIGN COVERAGE

Robert E. Hurd and M. Mark Miller

Introduction

In recent years, a growing number of scholars have come to recognize the need to reassess and facilitate the interaction between news media and the audience/electorate in democratic society (Gans, 1983; Blumler, 1983; Robinson et al., 1982). Gans (1983) notes, however, that despite the potential impact of news media on democratic processes, adequate methods have yet to be devised with which to monitor and evaluate news media performance of their vital societal functions. Such evaluation requires methods capable of assessing the extent to which news media satisfy and accommodate the information needs, interests and abilities of the audience/electorate.

Hurd (1985) proposed a method for measuring audience perceptions of news media content relative to their perceived information needs and interests. Borrowing from Galileo theory and method (Woelfel & Fink, 1980), he used metric multidimensional scaling techniques to map audience perceptions of the instrumental utility and interest value of various types of campaign information and the extent to which these information types were provided by television and newspaper coverage of the 1984 presidential election campaign (Woelfel & Fink, 1980; Patterson & McClure, 1976; Atkin, 1973). Such an evaluation, he argued, allowed respondents to make direct comparisons between their information needs and interests and the perceived attributes of news media content.

Hurd (1985) interpreted the MDS maps to suggest that news media campaign coverage satisfied neither the information needs nor the intrinsic interests of the respondents in his sample. He concluded by challenging the conventional wisdom that "horse race" journalism is necessary to sustain limited audience interest in election campaigns.

His analysis, however, raised questions about the meaning and proper interpretation of the data which warrant closer attention. In proposing this method of news media evaluation, Hurd suggested the innovative measurement techniques might prove useful in uses and gratifications research, especially as it attempts to link audience perceptions to actual media use behavior and audience activity (Palmgreen, 1984).

This paper re-examines the Hurd (1985) data in an attempt to validate both the promising data-gathering method as well as recent theories which link audience expectations and values with mass media exposure and use (Galloway & Meek, 1981; Palmgreen, 1984). The theoretical and methodological issues addressed by Hurd are reviewed below, followed by a discussion of his key findings. Finally, validation procedures and the results of this reanalysis are presented.

News Media and the Audience/Electorate

Today the news media are recognized as the primary source of information to be processed by an active audience/electorate constructing the mental pictures that guide its political behavior (Graber, 1984; Lippmann, 1922). While social and psychological factors may influence how this information is processed, it has

become increasingly clear the news media play an instrumental role in determining the quality and quantity of political information available for selection and processing.

Blumler (1983) notes the mass media provide a crucial link between a public characterized by apathy, skepticism and volatility, and leaders of social and political institutions (including the mass media themselves) that are rapidly losing credibility and perhaps even legitimacy. Although Graber (1984) notes that most Americans must cope with a never-ending and sometimes overwhelming tide of public affairs information from the media, serious questions have been raised about the quality or utility of that information and the effectiveness with which the news media perform this vital function (Gans, 1983; Robinson & Sheehan, 1983; Robinson et al., 1982; Paletz & Entmann, 1981; Lemert, 1981; Patterson, 1980; Patterson & McClure, 1976; Manheim, 1976; Robinson, 1975).

The literature suggests two conflicting perspectives on the interaction between news media and the audience/electorate. Both views, however, concede that public affairs information may not be communicated effectively from news media to its audience. Critics tend to fault news media practices and performance (Downs, 1957; Robinson, 1975; Manheim, 1976; Paletz & Entmann, 1981; Lemert, 1981; Gans, 1983), while others note apparent audience limitations and constraints on media (Graber, 1984; Broh, 1982; Berelson, 1952; 1954).

On one hand, the uses and gratifications literature supports the concept of an active audience engaged in routine scanning and sometimes purposive surveillance of the social environment via mass media use (Graber, 1984; McLeod & Becker, 1981; Atkin, 1973). Atkin

(1973) distinguishes between two major classes of motivations throught to underlie information seeking, mass media exposure and message selection. The first class is immediate consummatory gratifications sought from the very process of exposing one's self to mass media. These desired gratifications include entertainment, emotional arousal, diversion and intrinsic interest in a particular type of information. Reviews by Atkin (1973) and McLeod and Becker (1981), however, conclude that news media exposure, attention and message receptivity appear guided primarily by a second class of gratifications—a need or desire to acquire information that possesses instrumental utility. Such information is presumably sought or selected because it is perceived to be useful in constructing adaptive responses to the social environment—such as deciding how to vote (Atkin, 1973).

Critics, however, have repeatedly questioned the utility of news media content, charging that its coverage trivializes the political process and fails to either inform citizens adequately or inspire meaningful political participation (Paletz & Entmann, 1981; Lemert, 1981; Manheim, 1976; Robinson, 1975). Content analyses have consistently supported criticism, for example, that news media coverage of presidential election campaigns emphasizes the superficial drama surrounding the political "horse race" at the expense of substantive information necessary to make an informed vote decision (Robinson & Sheehan, 1983; Patterson, 1980; Patterson & McClure, 1976; Graber, 1976; Hofstetter, 1976).

These observations are especially disturbing in light of the changing contemporary perspective on the nature of the audience/ electorate and its activity. The audience is not only thought to

actively seek information, but to use it as well. The vote decision is no longer conceived as simply determined by party preferences or other psychological predispositions (Berelson et al., 1954), but is recognized instead to be the product of the cognitive processing of information obtained primarily from the mass media (Graber, 1984; Woodall et al., 1981; Bennett, 1981). The apparent deficiencies in news media content might explain why respondents frequently report they do not fully obtain the surveillance-related gratifications they seek from news media use (McLeod & Becker, 1981).

On the other hand, Graber (1984) suggests that social desirability bias tends to inflate self-reports of audience interest in public affairs information. She argues the news media are confronted with an "impossible task" in trying to satisfy an audience whose diverse social characteristics and experiences create differential information needs, interests, processing abilities and news media behavior. Graber suggests news media users may actually desire to be better informed about public affairs, but often remain unable or unwilling to make the necessary effort.

In fact, journalists frequently complain their ability to inform the public more responsibly and effectively is constrained by economic disincentives associated with these presumed limits on the political interest and cognitive ability of the mass audience (Robinson et al., 1982; Gans, 1983; Graber, 1984). This conventional wisdom suggests the news media are torn between two imperatives--a professional responsibility to inform democratic society and the pragmatic necessity of economic self-preservation in a competitive marketplace (Hurd, 1985; Paletz & Entmann, 1981). It

is also assumed, in contrast to the uses and gratifications literature, that entertainment and other immediate consummatory gratifications provide stronger motivation for news media use than do desires for information possessing instrumental utility.

From this perspective, "horse race" journalism becomes a necessary evil—the inevitable outcome of attempts by the news media to package their news and campaign coverage so as to fulfill at least part of their responsibility to inform the public, without losing their audience and revenue base (Paletz & Entmann, 1981). Others have gone further to suggest such practices may be an effective and desirable way to communicate with the "uninvolved electorate" (Broh, 1980; Sinclair, 1982).

Gans (1983), however, calls for empirical tests of the assumptions implicit in the conventional wisdom, warning that journalists' inaccurate perceptions of their audience are likely to influence their professional values, norms and practices—and ultimately degrade the news product itself (Robinson et al., 1982; Gans, 1979; Tuchman, 1972; Blumler, 1969).

Despite their differences, these two perspectives draw attention to a serious mass communication problem confronting democratic society. Blumler (1983) urges communication researchers to find ways the mass media can promote "political literacy" and avert an impending "crisis" in democracy. Gans (1983) suggests this research should focus directly on evaluating news media performance and suggesting ways it might be improved to facilitate democratic processes.

Hurd (1985) noted that such research and evaluation demands a better understanding of the extent to which news media satisfy or

accommodate the information needs, interests and abilities of the audience/electorate, as well as the development of empirical methods capable of identifying these characteristics and making such an assessment (Gans, 1983).

Measuring Audience Perceptions

Hurd (1985) used the Atkin (1973) model to reconcile the two conflicting perspectives and suggests a constructive approach to news media evaluation which recognizes the possible constraints and limitations on both sides of the news interaction. News media content should not be evaluated without taking into account the information needs and interests of the audience. Similarly, valid judgments about audience interest and use of news information cannot be made without considering the quality or character of available media content (Hurd, 1985).

This is consistent with the Atkin (1973) model which suggests message selection occurs when the estimated reward value of the information exceeds the expected cost of obtaining and processing it, relative to one's available resources. The utility assigned to a message is then the product of both the perceived information needs of the media user and perceived characteristics of the message itself (Hurd, 1985).

In this context, the nature of the problem becomes more clear—the reward value of public affairs information available from news media may often be relatively less than the "cost" of obtaining and processing it (Hurd, 1985; Atkin, 1973; Downs, 1957). Numerous content analyses suggest the news frequently offers more entertainment value than instrumental utility. That some apparent

needs or desires for substantive political information reportedly go unfulfilled by news media use might then be attributed to the prohibitive cost of obtaining or processing news information.

This would reflect either (1) insufficient reward value of news content to motivate its acquisition, (2) insufficient resources available to the user, or more likely (3) some combination of the above given the relative nature of these characteristics (Hurd, 1985; Graber, 1984; Atkin, 1973). Hurd suggested a constructive approach would seek to find that balance between audience and media characteristics which would maximize the effectiveness of the interaction.

The Atkin (1973) model also posed important implications for the measurement of audience perceptions and evaluations of news. Hurd (1985) noted that estimates of reward value and cost would necessarily depend on audience perceptions of their information needs, interests abilities as well as perceived characteristics of the message. This required the use of methods capable of measuring audience perceptions of their own characteristics as well as those of news media content, and making direct comparisons among them (Hurd, 1985).

Hurd noted that Galileo theory and method appeared to provide a means by which audience perceptions of news media content could be measured relative to their perceived information needs and interests, by using the same "yardstick" for all measurements (Woelfel & Fink, 1980; Miller & Hurd, 1984; Barnett et al., 1976). By using metric multidimensional scaling techniques to map these audience perceptions, it became possible to clarify audience the

perceived information needs and interests of the audience/ electorate, compare them directly with perceptions of news and determine the extent to which they were satisfied by news media coverage (Hurd, 1985).

The media uses and gratifications literature suggests audience members are capable of making such assessments, at least independently. The uses and gratifications perspective asserts that media use is goal-oriented, requiring that respondents be able to articulate the gratifications they seek and discriminate among media channels and messages according to the gratifications or types of information they are likely to provide (Palmgreen, 1984). These fundamental assumptions were met during early efforts to develop typologies of gratifications people seek (or value) and those they (expect to) obtain from media use (Palmgreen, 1984; McLeod & Becker, 1981; McQuail, Blumler & Brown, 1972; Blumler & McQuail, 1969).

This research indicates people are not only able to articulate perceived needs, interests or desired gratifications, but they can also identify the medium, channel, message or activity that will most likely satisfy or fulfill these needs or desires (Katz et al., 1973; McLeod & Becker, 1981; Palmgreen, 1984). Respondents appear capable of associating certain gratifications with particular media and distinguishing among different media on that basis. Lichtenstein and Rosenfeld (1983; 1984) found numerous media have clear, socially defined images, and these expectations of gratifications obtained from media use appear influenced by both experiential and normative factors. Kippax and Murray (1980) found people were able to discriminate among six media based on their perceived ability or "helpfulness" in fulfilling some 30 needs.

Multidimensional scaling (MDS) techniques have proven very useful in exploring the underlying structure of these audience perceptions of media and messages. Katz et al. (1973) used MDS to demonstrate that Israeli audience members differentiated among five media according to perceived or expected gratifications obtained. Elliott and Quattlebaum (1979) essentially replicated this study with students in the United States.

Lometti et al. (1977) used similar techniques to demonstrate that people can distinguish among channels and messages based on gratifications they are seeking. The authors asked respondents to judge the perceived similarity and dissimilarity between all possible pairs of eight media channels, using as a basis for their judgments "whatever attributes they choose to think about." Multidimensional maps were then derived from these paired comparisons. The relative locations of the eight media or cognitive objects were intepreted to suggest the dimensions along which they were compared. Distances between objects was assumed to represent the perceived similarity between media channels (Lometti et al., 1977).

The authors found only three operative gratification dimensions along which media were compared, the strongest of which appeared to represent a continuum from instrumental utility to entertainment value (Lometti et al., 1977; Hurd, 1985; Atkin, 1973). Interpretation of these dimensions was validated with univariate gratification measures. The authors noted that respondents may have confounded channel and content attributes and called for future research to develop strategies to separate such gratifications (Lometti et al., 1977). Hurd (1985) addressed this concern as well as similar

criticism that uses and gratifications research has ignored audience perceptions of media content and its attributes (Swanson, 1977; Palmgreen & Rayburn, 1979).

Hurd (1985) proposed Galileo theory and method (Woelfel & Fink, 1980) as an alternative approach which offers numerous advantages for the measurement of audience perceptions and evaluations of news. First, Galileo method provides assurance that objects, attributes and criteria for evaluation are meaningful to respondents, by conducting open-ended, in-depth interviews to determine the domain of discourse and its most salient concept members (Woelfel & Fink, 1980; Miller & Hurd, 1984). This is especially important in uses and gratifications research because the domain of relevant gratifications is likely to vary with the type of content under investigation (Palmgreen, 1984).

In addition, Galileo requires no dubious assumptions that the phenomena to be measured are unidimensional, or that the dimensions of evaluation and their interrelationships are known apriori. Nor is the geometric representation determined by dimensions selected by the investigator. Galileo method also provides a spatial representation of respondent perceptions of concepts, their relative locations and relationships, such that all perceptions can be visualized simultaneously (Woelfel & Fink, 1980; Lometti et al., 1977).

Although Galileo method shares many of the above characteristics with the Lometti et al. (1977) approach, it departs significantly in its measurement techniques (Woelfel & Fink, 1980). Lometti et al. (1977) asked respondents to express their perceptions

of the dissimilarity between two cognitive objects using a 5-point Likert scale ranging from "very dissimilar" to "very similar." Similar ordinal scales are common in mass communication and gratification research, but such imprecise, bounded measures allow for very little discrimination among observations. As a result, respondents may be unable to express their perceptions adequately, and potentially valuable information is lost when substantively different objects are inevitably assigned the same value (Woelfel & Fink, 1980). These measures are also overanchored, in that equal intervals cannot be assumed and respondents must then choose among several "yardsticks" with which to make their measurements of media, leading to inconsistent and incomparable results (Woelfel & Fink, 1980).

Galileo theory and method provides for the use of a standard yardstick that is neither bounded nor overanchored to make all comparisons. Respondents are asked to make direct magnitude estimations of the separation or conceptual distance between concepts representing cognitive objects and their attributes. These ratio-level distances provide a more precise measurement of perceived similarity and dissimilarity, allowing for an infinite number of possible outcomes and discriminations among observations (Woelfel & Fink, 1980). Extensive tests of the scaling procedure indicate this precision does not come at the cost of reliability (Barnett et al., 1976; Gillham & Woelfel, 1976; Gordon, 1976; Barnett, 1972). In fact, only modest sample sizes are necessary to yield data that are more precise and reliable than conventional survey data (Miller, 1986; Miller & Hurd, 1984).

Finally, Galileo theory and method allows for the scaling and

comparison of an infinite range of concepts representing, not just physical entities, but all cognitive objects and their attributes. These include the "self," human emotions, activities, ideas—any concept that might be conceived by the human imagination (Woelfel & Fink, 1980). Investigators using more conventional MDS techniques have included a cognitive object representing the "self" in their measurements and maps. Reeves and Miller (1978), for example, operationalized children's identification with television characters as the mean interpoint distance between the self-concept "Me" and concepts representing various TV characters.

Galileo theory goes one step further and assumes anything that might be imagined is represented by some concept whose meaning can be defined relative to other concepts, and expressed in terms of similarity or dissimilarity (Barnett et al., 1976; Woelfel & Fink, 1980). Furthermore, these conceptual dissimilarities can be expressed as perceived distances or separations between concepts. These distances can then be aggregated to derive cognitive maps representing the spatial relationships among salient concepts in a given domain.

These maps represent the perceived or constructed social reality to which people construct responses (Barnett et al., 1976; Woelfel & Fink, 1980). The greater the reported distance, the greater the conceptual discrimination among cognitive objects. The less the mean interpoint distance, the greater the perceived similarity or association between concepts—regardless of what these concepts represent. Thus, in a sense, Galileo theory and method allows for the direct comparison of "apples" and "oranges."

Hurd (1985) noted the implications of the Atkin (1973) model

made such direct comparisons necessary, and concluded Galileo method offered great flexibility in operationalization and measurement that could prove useful in gratifications research and attempts to evaluate news media content.

Although Galileo method has been used successfully to scale a wide range of aggregate values, beliefs and perceptions (Miller & Hurd, 1984; James, 1985; Reeves & Lometti, 1980; Barnett et al., 1976; Serota et al., 1977; Woelfel, 1975; Levy et al., 1979; Korzenny et al., 1980; Maase et al., 1984), Hurd appears to be the first application of Galileo methods to research relevant to media uses and gratifications. Similarly, MDS techniques have been employed to measure and map audience perceptions of media and gratifications obtained (or expected), but not to measure audience characteristics—perceived information needs, values, interests or gratifications sought. Nor had methods been used that allow for direct comparisons between these perceived needs/interests and the extent to which news media satisfy them (Hurd, 1985).

Collection of the Original Data

Hurd (1985) used metric multidimensional scaling techniques to map audience perceptions of the instrumental utility and interest value of various types of campaign information, and the extent to which these information types were perceived to be provided by television and newspaper coverage of the 1984 presidential election campaign. He suggested Galileo theory and method provided a means by which audience perceptions of news media content could be measured relative to their perceived information needs and interests, by using the same "yardstick" for all measurements. Such

direct comparisons provided the basis for his evaluation of the extent to which campaign coverage satisfied audience needs or desires.

Multidimensional maps of these audience perceptions were derived from survey data gathered from a representative sample of Knoxville, Tennessee area adult residents during the final weeks of the 1984 presidential election campaign. These maps were interpreted to suggest the spatial relationships among salient concepts in the cognitive domain of evaluating news media campaign coverage. These concepts were generated earlier in open-ended, in-depth interviews conducted to elicit terms or phrases people used most frequently to discuss and describe news media coverage and the types of information they thought might be interesting, useful, or provided by the news media.

Eleven such concepts were identified and incorporated in a structured questionnaire which asked respondents to make direct magnitude estimations of the "distance" or separation between the two concepts in each of 55 non-redundant pairs. Respondents were asked to make these distance judgments proportional to a standard distance or "yardstick" provided by the investigator. The arbitrary distance of 10 units was assigned to represent the length of this yardstick, and the distance between the concepts in the criterion pair.

During a brief instruction session respondents became familiar with the direct magnitude separation procedures. They were told to provide numbers larger than 100 if two concepts were more different than the criterion pair, and number smaller than 100 for concepts that seemed more similar than the criterion pair. The greater the

perceived difference, the larger the distance or number they were to provide. If two concepts were thought to be no different at all, respondents were told to say "zero."

The 11 salient concepts to be scaled included 5 types of campaign information frequently mentioned in the pre-tests as either interesting, useful or available from news media: (1) candidate leadership abilities, (2) voting records, (3) campaign promises, (4) who's ahead in the polls, and (5) mudslinging. The list also included the self-concept (6) yourself and concepts representing the two most frequently mentioned sources of campaign information: (7) television news and (8) newspaper stories. Also scaled were attributes of these cognitive objects that were frequently mentioned as being desirable: (9) interesting, (10) believable, and (11) decide how to vote. Efforts were made to preserve the pre-test respondents' exact wording wherever possible to ensure the concepts were meaningful to members of the larger sample.

The structured interview questions were posed in the following form:

If campaign promises and voting records differ by 100 units, how different are ....

.... campaign promises and mudslinging?

.... campaign promises and interesting?

.... campaign promises and decide how to vote?

.... campaign promises and television news?

.... campaign promises and yourself?

These procedures yielded ratio-level data in the form of perceived distances between 11 salient concepts in the domain of evaluating news media coverage of the campaign. These perceived

distances were then aggregated and used to derive multidimensional maps of the spatial relationships among these cognitive objects and their attributes.

Operationalization and Data Interpretation

Interpretation of these multidimensional Galileo maps assumed the "meaning" of a concept could be expressed and represented by its relative location or its perceived distance from other cognitive objects and attributes. The smaller the mean interpoint distance, the greater the perceived association between concepts, and conversely.

Hurd (1985) noted use of these interpoint distances allowed for great flexibility and efficiency in operationalization. He assumed the distance between a type of information and the attribute "interesting" indicated the relative intrinsic interest in that type of information. Similarly, the distance between a type of information and the concept "decide how to vote" was presumed to represent the perceived instrumental utility of that information—the extent to which it was useful in making a vote decision. Galileo theory would also suggest the distance between a type of information and the self-concept "yourself" indicates an affective orientation—the extent to which that information is valued by the respondent (Woelfel & Fink, 1980). In this manner, types of information were compared to suggest their relative utility or interest to respondents. The less the reported interpoint distance, the greater the perceived utility or interest.

Hurd (1985) also presumed the distance between a medium and a type of information represented the extent to which such information

Figure One

THE AGGREGATE COGNITIVE SPACE IN THREE DIMENSIONS

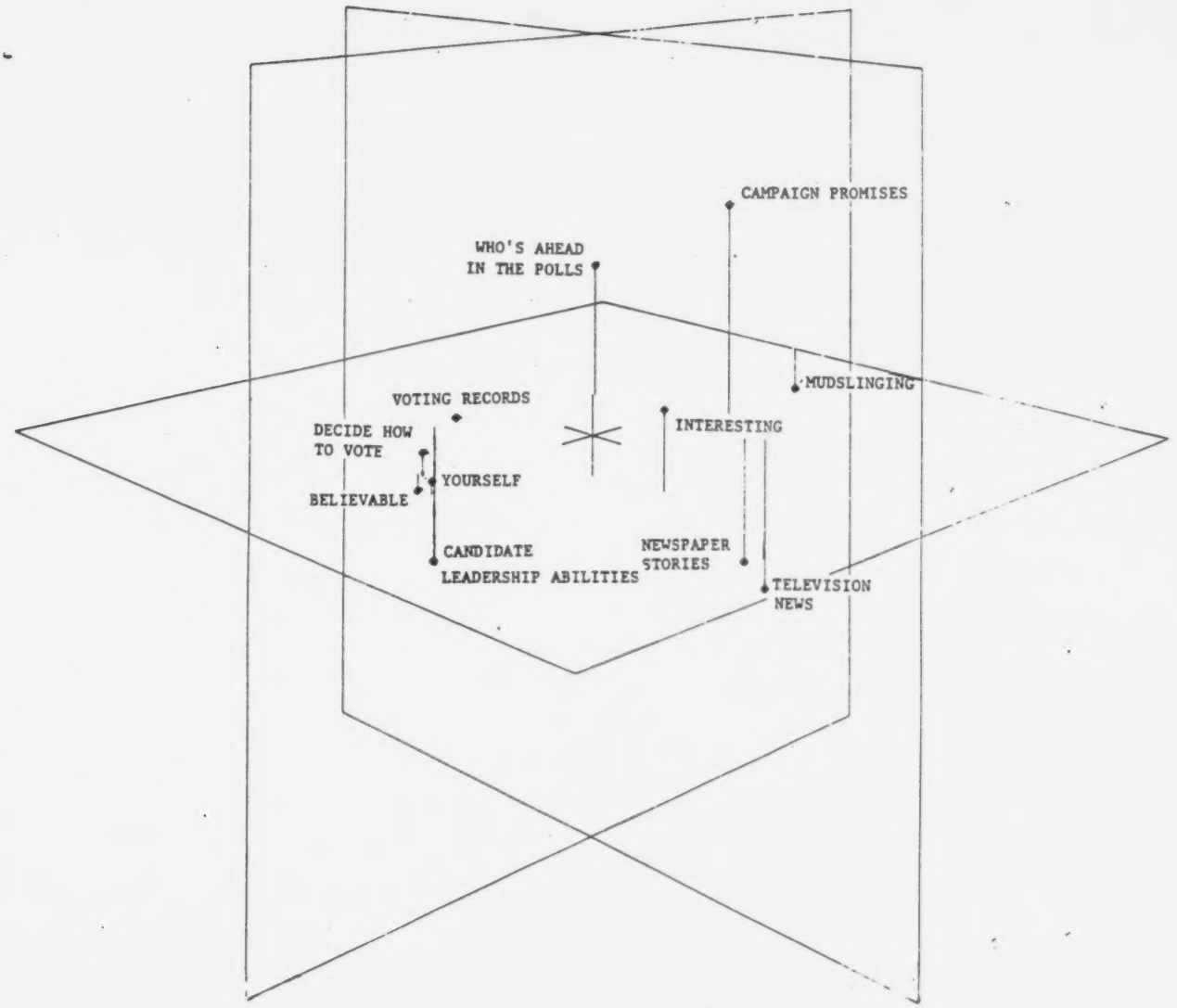

Figure Two

THE AGGREGATE COGNITIVE SPACE IN TWO DIMENSIONS

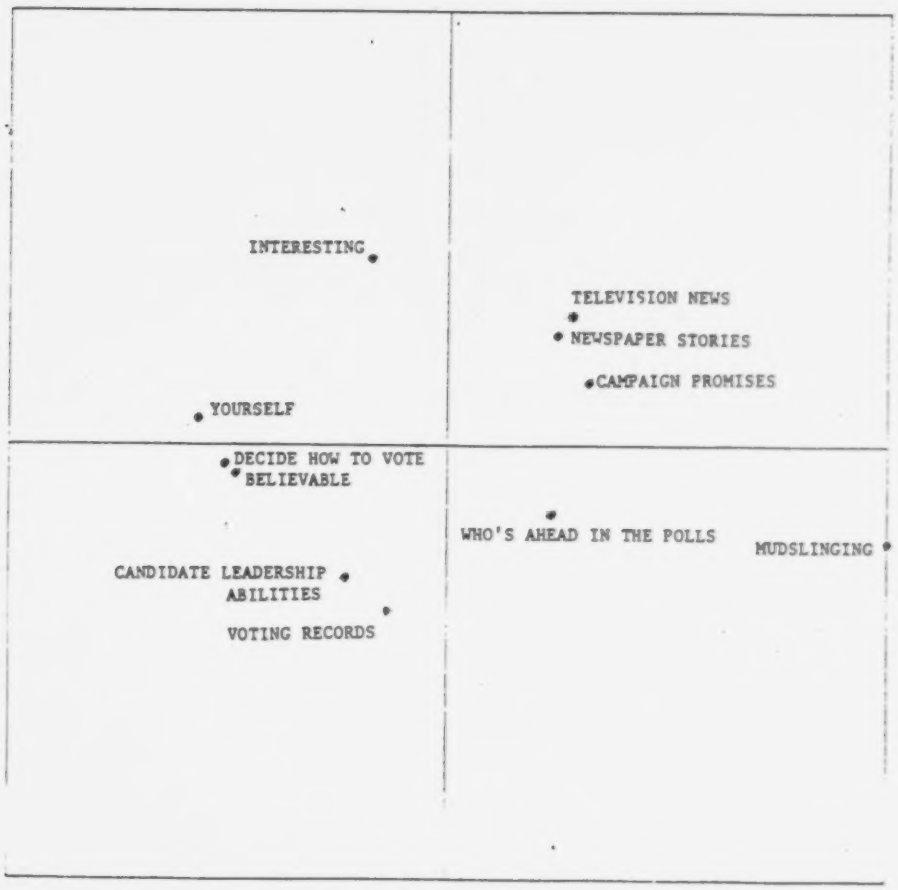

Table One

MEAN PERCEIVED DISTANCES BETWEEN SELECTED KEY CONCEPTS

Type of information	(9) Television news	(10) Newspaper stories	(11) Yourself	(8) Decide how to vote	(6) Interesting
Candidate leadership abilities (1)	105	100	91	69	97
vote records (2)	109	102	69	67	99
campaign promises (3)	92	94	99	110	76
mudslinging (4)	91	102	158	148	136
who's ahead in the polls (5)	92	92	129	130	100

was perceived or expected to be provided by the medium. The less the reported distance, the more it was associated with or expected from the medium. Comparisons were then made of the two media and the extent to which they were perceived to provide different types of information judged to be more or less interesting or useful. In this manner, audience needs and desires could identified, and then compared with perceptions of the extent to which news media provided for them. T-tests were then performed to detect significant differences between these various perceptions expressed in the form of distances between concepts.

The Hurd (1985) data yielded a cognitive map with 11 dimensions, the first three of which accounted for more than 77 percent of the "real" variance. Figure One depicts the locations and spatial relationships of the 11 concepts in the first three principal planes. The relationships may be easier to visualize in two dimension (see Figure Two), but information is invariably lost when dimensionality is reduced. The first two dimensions explain only 61 percent of the real variance.

Table One reveals the mean perceived distances for each of the key operationalizations—the instrumental utility, intrinsic interest and personal value of each of the five types of campaign information, as well as the extent to which they are associated with television and newspaper coverage. Hurd (1985) reported that respondents perceived the two media to differ only with regard to their emphases on "mudslinging." The distance between this type of information and "television news" (91 units) was significantly less

than its distance from "newspaper stories" (102 units; $t = 1.86$ with 80 df, one-tailed $p < .05$), indicating a stronger association of mudslinging with television coverage of the campaign.

Other perceptions or expectations of news media content appear in the hypothesized direction, but these differences fall short of statistical significance. Television coverage appears associated more with popularity polls and campaign promises (92 units; 92 units) than with substantive information about candidate leadership abilities or voting records (105 units; 109 units). A similar pattern is apparent for perceptions of newspaper coverage (see Table One), but a sample size larger than $n = 83$ may be needed to ensure these differences are not due to random error.

Respondents did, however, perceive that substantive information possessed significantly more instrumental utility than did campaign promises, polls or mudslinging. For example, "candidate leadership abilities" was located 69 units from "decide how to vote." Campaign promises was located significantly further from the vote decision (110 units; $t = 2.40$ with 80 df, one-tailed $p < .01$), and thus perceived to be less useful in deciding how to vote. In each comparison of the instrumental utilities of the five types of information, candidate leadership abilities and voted records were rated significantly higher (alpha = .01) than the other three types of information (Hurd, 1985).

The results compiled in Table Two were interpreted to suggest an inverse relationship between the perceived utility of information and the extent to which it was associated with or expected from television and newspaper coverage of the campaign (Hurd, 1985). Again, high instrumental utility is represented by low mean

Table Two

DISCREPANCIES IN INFORMATION DESIRED AND PERCEIVED OBTAINED FROM TELEVISION AND NEWSPAPER CAMPAIGN COVERAGE

Information Type	Instrumental Utility	Association w/Television	Discrepancy (t-value)	Associaton w/Newspapers	Discrepancy (t-value)
Voting Records	67	109	4.27, 80 df $p < .001$	102	3.16, 81 df $p < .001$
Leadership Abilities	69	105	1.95, 79 df $p < .05$	100	1.91, 80 df $p < .05$
Campaign Promises	110	92	NS	94	NS
Who's Ahead in the Polls	130	92	2.26, 79 df $p < .02$	92	2.30, 80 df $p < .02$
Mudslinging	148	91	4.45, 79 df $p < .001$	102	3.44, 80 df $p < .001$

NOTE:

Instrumental utility = the mean interpoint distance between type of information and "decide how to vote."

Association w/Medium = the mean interpoint distance between type of information and "television news" or "newspaper stories."

All tests of significance are one-tailed hypotheses.

* Data compiled from Hurd (1985)

interpoint distances between a type of information and "decide how to vote." The further this type of information is located from the two media, the less it is perceived to be available from their campaign coverage. Table Two suggests that the greater the perceived utility of information, the further it was located from "television news" and "newspaper stories." These differences were statistically significant (Hurd, 1985).

Finally, Hurd (1985) addressed the issue of insufficient audience interest in substantive types of information assumed to possess instrumental utility. Although respondents were able to make significant discriminations among types of information based on their perceived utility, they did not successfully differentiate among types of information according to their interest value. While "candidate leadership abilities" and "voting records" were perceived to be significantly more useful than the other three types of information, such perceptions did not render this useful information to be significantly less interesting. Only "mudslinging"--the information located closest to television--was perceived to be significantly less interesting than other information types. Mudslinging was also rated significantly less useful (Hurd, 1985).

Implications and Further Questions

From these data, it would be difficult to argue that audience interest in the hoopla of the political "horse race" precludes the news media from informing democratic society more effectively and responsibly. Respondents perceived that news media coverage of the campaign satisfied neither their information needs nor their intrinsic interests. They rated "substantive" types of information

as both interesting and useful in making a vote decision, but found the news media emphasized it less than other types of information thought to be significantly less useful and often less interesting.

These findings challenge the conventional wisdom and provide some hope that news media might be able to satisfy previously unrecognized demand for substantive political information within the constraints of the free market system. Although instrumental utility does not necessarily translate into increased interest value, Hurd (1985) suggested it might be possible to increase the instrumental utility of news media content and thereby lower the relative cost of obtaining substantive political information—without sacrificing audience interest and the revenue it brings.

Hurd (1985) concludes: "In fact, such changes may be necessary to ensure continued economic viability in an increasingly competitive market in which news communication technologies could lure away dissatisfied news media." In short, the mass media may have an economic stake in informing the public more effectively.

These findings would have greater significance and value if the data-gathering method and data interpretation were validated, and these audience perceptions were shown to impact on subsequent audience activity and news media use patterns. The Hurd (1985) analysis, however plausible, raised interesting methodological questions, especially with regard to the proper interpretation of the cognitive maps. The flexibility and efficiency in operationalization that he noted may also breed potential ambiguity in subsequent interpretation for precisely the same reasons.

Recent developments in gratifications research may hold the key to validating the methods used to gather and interpret the Hurd

(1985) data, as well as exploring the possible impact of these audience perceptions on news media use. McLeod et al. (1982) reasoned that audience evaluations of media might depend on whether they had, in fact, obtained the gratifications they sought from its use, and these perceptions might also influence subsequent media behavior.

Although this conceptual distinction between gratifications sought (GS) and gratifications obtained (GO) has proven difficult to operationalize (Becker, 1979; McLeod & Becker, 1981; Palmgreen, 1984), several tests have succeeded in linking such GS-GO discrepancies to levels of news media exposure (Palmgreen & Rayburn, 1979), program choice (Palmgreen et al., 1981) and news media dependence (Wenner, 1982).

Given that respondents count surveillance-related gratifications among the most important motives for their news media use (Atkin, 1973; McLeod & Becker, 1981), and that news media coverage appears to place little emphasis on the instrumental utility of news information (Patterson & McClure, 1976; Robinson & Sheehan, 1983; Hurd, 1985), one might expect to find negative evaluations of news media coverage and perhaps decreased exposure or attention to it.

On the other hand, the development of expectancy-value theories of media consumption has provided alternative models that have proven easier to explicate and operationalize (Galloway & Meek, 1981; Palmgreen & Rayburn, 1982; Rayburn & Palmgreen, 1984; Palmgreen, 1984). Essentially, expectancy-value approaches predict that individuals will expose themselves to mass media, channels or messages if they expect such activity will result in outcomes they value (Galloway & Meek, 1981). Such models now appear to receive

more attention and support than other approaches to media uses and gratifications (Palmgreen, 1984).

Expectancy-value theory would suggest that audience members who have come to expect that news media will provide them with campaign information they value will subsequently elect to expose themselves to election news. Ungratified audience members are likely to evaluate news media negatively because they have learned not to expect outcomes they value, and are thus discouraged from subsequent or continued exposure.

In this manner, both GS-GO discrepancy models and expectancy-value approaches would make essentially the same prediction with regard to the Hurd (1985) data--if audience members want to be informed by the news media and perceive its campaign coverage to be as superficial as critics suggest, one would expect negative media evaluations and decreased satisfaction. We would also predict decreased news media exposure or use, although it should be noted such a decrease might depend on the viability of alternative sources of campaign information, i.e., the reward value, relative "cost" and availability.

Expectancy-value theory is used below in an attempt to validate the Hurd (1985) data and analysis, and begin to explore the possible impact of such audience evaluations on news media consumption patterns. If these data prove meaningful and their interpretation valid, this and subsequent research could contribute to the theory, method and policy of mass communication.

Assessing Reliability

Measurements can only be valid to the extent they are reliable,

non-random or measure anything at all. There exists considerable skepticism, even among social scientists, about whether people are capable of making reliable judgments at the ratio level (Woelfel & Fink, 1980; Lodge, 1981). It is often suggested the direct magnitude estimates in the Galileo protocol are seriously contaminated by random measurement error (Miller, 1986).

To the extent that respondents provide random estimates of the distance between paired concepts, we would expect (1) limited aggregate differentiation between pairs or approximately equal mean interpoint distances between concepts, (2) relatively large standard deviations in these means, and (3) a symmetric spatial representation in which all concepts are roughly equidistant.

However, this was not apparent in the Hurd (1985) data. He reported "relatively small" standard errors of measurement and found statistically significant differences among the mean interpoint distances. In addition, these significant differences appear systematic, interpretable, and in the general hypothesized pattern. Tables One and Two reveal aggregate spaces whose concepts are distributed unequally in patterns that cannot be attributed to random distance estimates.

Thankfully, more formal and systematic techniques exist for assessing the reliability and quality of measurements obtained with Galileo and other methods. Barnett, Serota and Taylor (1976) contend the Galileo scaling procedure has been pre-tested extensively. Aggregate test-retest reliability coefficients of .90 and above have been reported by Barnett (1972) with as few as 50 cases, and by Gillham and Woelfel (1976) with only 29 cases. Simultaneous but separate random samples of 100 have produced inter-

group correlations ranging from .93 to .97 in repeated tests by Gordon (1976).

Barnett et al. (1976) explain that aggregation eliminates the potential problem of unreliability because the arithmetic average of all responses for any given paired comparison will converge on the true mean of the population as the sample grows large, according to the Central Limits Theorem and the Law of Large Numbers. The authors caution, however, that reliability coefficients such as those cited above depend on the scaled concepts and the homogeniety of the sample used. Larger samples may be necesssary to obtain reliable data from surveys of heterogeneous populations. Nevertheless, Miller (1986) concludes the Galileo method typically requires only modest samples to yield data that are more precise and reliable than conventional survey data (Miller & Hurd, 1984).

In an independent analysis, Miller (1986) used generalizability theory (Cronbach et al., 1963; 1972) to assess the reliability or "dependability" of Galileo data gathered by Hurd (1985) and other researchers. Miller notes the key differences between Galileo and more conventional methods—rather than measuring individuals, Galileo used people as measuring instruments or raters of stimuli. These stimuli are the pairs of concepts and the property being evaluated is the perceived differences among the pairs. Appropriate techniques for assessing the reliability of such measurements would then include interclass correlation coefficients which assess the degree to which raters detect systematic differences among stimuli (Miller, 1986).

Miller calculated one such statistic, a random effects dependability coefficient, for the Hurd (1986) data. The

coefficient of .63 can be interpreted as the variance due to the phenomena being observed (concept pairs representing news media campaign coverage) as a proportion of the total (universe) variance. This coefficient accounts for error due to differences among raters as well as "yardstick error" due to the rater-by-pair interaction.

Miller (1986) suggested the obtained reliability of .63 might be considered marginal by some researchers, but it may compare favorably with much of the survey data gathered by more conventional means. He notes higher reliability estimates might be obtained with a larger sample or a more conceptually distinct domain, and recommends researchers proceed cautiously with the analysis of the Hurd (1985) data. Barnett et al. (1976), however, argue any limitation in the reliability of Galileo data "would only detract from our ability to use them to make accurate predictions." This suggests measurement error will be most apparent in the validation process.

The Validation Process

It is one thing to suggest data are reliable, systematic and meaningful, and another to ascertain precisely what meaning should be ascribed to them. It would appear that some of the flexibility and efficiency gained in Hurd's operationalizations may have come at the expense of clarity in interpretation (Hurd, 1985). This apparent ambiguity might have been reduced by greater precision in the selection of concepts and the apriori specification of operationalizations and hypothesized relationships.

Nevertheless, the literature suggests strategies for assessing the validity of the gathered data and their interpretation. First,

Miller and Hurd (1984) suggest the open-ended pre-test interview phase of the Galileo method not only provides assurance that selected concepts are meaningful to respondents in subsequent samples, but it can serve also as a validity check and guide to data interpretation.

Second, the measurements in question can be checked against those obtained from more conventional methods. Lometti et al. (1977) used unidimensional gratification items to guide and validate their interpretation of multidimensional maps of audience perceptions. Similarly, Hurd (1985) added a number of conventional 5-point Likert scales to his Galileo questionnaire, including an item which asked respondents to indicate the extent to which they agreed or disagreed the statement, "the news media don't really report about things that are important to people like me when we decide how to vote."

The resulting distribution of responses was clearly bimodal, and Hurd (1985) split his sample at the median to form two groups—those who appeared to be "satisfied" with news media coverage and those who appeared dissatisfied or critical." He then compared the cognitive maps and predicted significant differences between the two groups with regard to the spatial relationships among key concepts.

Tables Three and Four are reproduced here to reveal that "critical" respondents located substantive types of campaign information significantly further from the two news media than did respondents who independently reported they were "satisfied" with news media coverage of the campaign. This provided support for Hurd's (1985) original interpretation of the data, and illustrated one of the advantages of metric multidimensional scaling by

Table Three

MEAN PERCEIVED DISTANCE FROM "TV NEWS" BY SATISFACTION WITH NEWS MEDIA

	GROUP		
Type of information	SATISFIED	CRITICAL	T-test of difference
"who's ahead in the poll"	71	75	NS
"vote records"	72	106	t=-3.00, p=.004
"mudslinging"	75	84	NS
"candidate leadership abilities"	76	100	t=-1.94, p=.056
"campaign promises"	80	88	NS

Table Four

MEAN PERCEIVED DISTANCE FROM "NEWSPAPERS" BY SATISFACTION WITH NEWS MEDIA

	GROUP		
Type of information	SATISFIED	CRITICAL	T-test of difference
"who's ahead in the polls"	67	80	NS
"vote records"	65	89	t=-2.08, p=.041
"mudslinging"	87	84	NS
"leadership abilities"	68	99	t=-2.86, p=.006
"campaign promises"	78	87	NS

revealing the component perceptions that underlie audience evaluations of news media.

A third and perhaps more demanding strategy is suggested by construct validation, a process that uses established theory to predict expected interrelationships among series of measurements. The uses and gratifications literature indicates that measurements of audience perceptions or evaluations are seldom validated (Becker, 1979; McLeod & Becker, 1981). The few notable exceptions (McLeod & Becker, 1974; Blumler & McQuail, 1969) are those which assessed construct validity by examining communication effects predicted by established theory. McLeod and Becker (1974) used political communication effects to validate gratification measures. Blumler and McQuail (1969) related gratifications sought to political attitudes and levels of political knowledge, and found that GS interacted with media exposure to produce significant effects.

As noted before, expectancy-value theory makes fairly clear predictions of the expected impact of audience evaluations of news media. If these perceptions or evaluations are measured validly, we should find that expectancy-value products predict news media exposure (Galloway & Meek, 1981; Palmgreen, 1984). The dependent variable here is a self-reported behavior and provides a good external criterion for validity.

This, of course, raises the question of which is being tested—the method or the theory? Typically, one assumes the validity of the measures and tests the theory, or vice versa. Woelfel & Fink (1980), however, suggest a construct validation alternative in which both theory and method are validated simultaneously and suggest that measurement rules provide a necessary and integral component of any

Table Five

ZERO-ORDER CORRELATIONS BETWEEN EXPECTANCY-VALUE PRODUCTS AND THREE VALIDATION CRITERIA

Index	News Satisfaction	TV News Exposure	Newspaper Use
Interest Value by Expectations of Television	.25 **	.16 *	.02
Instrumental Utility by Expectations of Television	.20 **	.15 *	-.08
Personal Value by Expectations of Television	.22 **	.23 **	-.02
Interest Value by Expectations of Newspapers	.25 **	.14	.05
Instrumental Utility by Expectations of Newspapers	.25 **	.06	.01
Personal Value by Expectations of Newspapers	.22 **	.08	-.03

* $p < .10$
** $p < .05$

(n = 83)

NOTES:

Interest Values are operationalized by the distance between the "interesting" and each of the five types of information.
Instrumental Utilities are operationalized by the distance between "decide how to vote" and each of the five types of information.
Personal Values are operationalized by the distance between the self-concept "yourself" and each of the five types of information.
Expectations of Media are operationalized by the distance between the media concept and each of the five types of information.

A z transformation was performed on these measurements for each respondent to facilitate comparisons between persons in the event of yardstick error.
Indexes were computed by summing the expectancy-value products for the five types of information.

Raw data from Hurd (1985)

successful theory. In this particular case, the initial interest is primarily methodological. But the results may also tell us something about theory and policy with regard to the possible impact of these audience perceptions (Hurd, 1985).

The validation process required only minor rephrasing in the operationalizations to ensure they matched key concepts in expectancy-value theory. Three types of audience "values" were examined: (1) Personal Value, operationlized by the distance between a type of campaign information and the self-concept "yourself"; (2) Interest Value, the distance between a type of information and the concept "interesting"; (3) Instrumental Utility (decisional value), the distance between a type of information and the concept "decide how to vote." Again, the smaller the perceived distance, the greater the presumed value along a particular dimension.

Expectations of news media use were conceived in terms of the likely outcomes of that activity—the perceived likelihood of receiving a particular type of campaign information. Again this was operationalized as the distance between a news medium and a type of information. The smaller the distance, the greater the presumed expectation of receiving the type of campaign information. Expectancy-value theory holds that neither expectations nor values alone should predict media exposure, but that products of these two variables will (Galloway & Meek, 1981; Palmgreen, 1984).

Three validation criteria were also examined: (1) News Satisfaction measured with the 5-point Likert scale discussed above; (2) a TV News Exposure index constructed by summing the responses to items which asked how many times per week respondents watched five

different types of TV news programs—the local 6 o'clock news, the national network evening news, the local 11 o'clock news, news on cable TV, and "other TV news shows like Nightline, Face the Nation and 60 Minutes"; (3) A Newspaper Use index constructed by summing four similar items which asked how many days per week they read a daily newspaper and read stories about politics on the front page, the editorial and opinion pages, and the inside pages. Reliability estimates of the media use indexes yielded Cronbach's alpha coefficients exceeding .80.

Correlations of expectancy-value products with these external criteria, however, required a minor transformation of the data to compensate for possible error in the use of the Galileo yardstick. Discussions with the interviewers suggested that respondents understood the concept of metric separation estimates and expressed these judgments relative or proportional to their other estimates. Interviewers were less certain, however, that these judgments were made proportional to the actual yardstick provided. Together with an examination of the original data, this suggested that the measurements within raters might be proportional, but that between-raters measurements might not be comparable due to individual differences in the "size" of the yardstick used.

To account or compensate for this possible source of error, a z-transformation was performed on the sets of measurements provided by each respondent or rater. A mean and standard deviation was calculated for the distribution of perceived distances provided by each individual rater. These distances were then transformed by substracting from the individual's mean and dividing by his or her standard deviation in measurement. In effect, the mean and variance

for each rater was held constant so as to make their estimates comparable.

It should be noted that such data transformations are not normally required by the Galileo method, if greater care is taken in the selection of an appropriate yardstick and if respondents are properly acquainted with the Galileo protocol. In addition, the yardstick problems noted above should have no substantive effect when examining aggregate cognitive maps because individual differences are systematic across the set of variables and affect each paired comparison equally. This is also true when Galileo estimates are correlated.

Individual differences in the size of yardstick used, however, would tend to attentuate correlations between Galileo estimates and non-metric measurements across individuals. This error would be multiplied during the calculation of expectancy-value products.

Once the measurements were standardized by the within-person z-transformation, expectancy-value products were calculated for the five types of campaign information and summed to form indexes. Specifically, each rater assigned a number to the value of a type of information and to the expectation that a news medium would provide that type. These two estimates were transformed and multiplied to form an expectancy-value product for each type of information. These products were then summed to form several index scores for each rater, representing products for the interest values, instrumental utilities and personal values of both television news and newspapers (see Table Five). These indexes were then correlated with each of the three validation criteria.

Validation Results and Discussion

Large positive scores on the expectancy-value (EV) product index represent situations in which respondents expect to receive the types of campaign information they value. Smaller or negative scores indicate situations in which respondents either expect to receive information they do not value or expect they will not receive information they value. Thus, we would expect positive correlations between these indexes and the three validation criteria.

Table Five presents the zero-order correlations between the EV products derived from the Hurd (1985) metric MDS data and the three validation criteria. Each of the EV product indexes correlates significantly with more conventional measures of news satisfaction. These correlations are positive, indicating that people who expect to get what they want from news (according to Hurd's interpretation of metric MDS responses) also tend to report (on independent, conventional survey items) they are satisfied with news media coverage. Despite the small sample size (n = 83), these correlations are significant at the alpha = .05 level. However, the EV products account for only a small proportion of the variance in news satisfaction. This might be due to the marginal reliabilities of the metric estimates, as reported by Miller (1986).

Small positive correlations were also obtained between EV products and TV News Exposure. The strongest relationship appears between the operationalizations of "personal value" which conform most closely with the assumptions of Galileo theory. This correlation (r = .23) was significant at the alpha = .05 level. The other operationalizations for interest value and instrumental

utility were significant only at the alpha = .10 level. This lower level might be considered appropriate for such a tentative analysis and small sample, but relaxation of these arbitrary standards was rarely necessary. The fact that EV products for newspapers do not correlate with TV news exposure might attest to the discriminant validity of these measurements.

The generally smaller correlations with news media exposure or use represent a common phenomena in the social sciences--mental states are more easily related than are mental states with behaviors or self-reported behaviors such as news media use. The Newspaper Use index did not correlate, however, with the EV products for either news medium, leading us to suspect this might be attributed to either differences in the nature of the two audience activities or apparent differences in the way they were measured. These data appear to suggest that newspaper habits persist despite expectations and values, but that respondents tend to watch TV news to the extent it provides information they value.

This raises again the question of viable sources of campaign information. It may be that EV products are systematically related to TV news exposure because convenient, effective and low "cost" alternatives exist for television, while such alternatives to newspapers may not be so readily apparent. Inadequate availability of viable alternatives would tend to reduce the apparent relationships between EV products and both news media, and might be resolved as innovations in news distribution are made possible by new mass communication technologies.

These data support the general thrust of Hurd's (1985) initial interpretation, but also indicate the need for greater precision in

the apriori specification of operationalizations and hypotheses and greater care in the selection of cognitive concepts to be evaluated and the yardstick with which such comparisons are to be made.

In addition, these data lend some support to a developing expectancy-value theory of media consumption and suggest metric MDS techniques may yet provide an innovative method for measuring audience perceptions and evaluations of news. The fact that only weak correlations were obtained between mental states and self-reported behaviors would seem to attest to a pervasive problem in the social sciences not attributable to the particular methodology in question. Rather, the strength of the method is suggested by the significant correlations obtained with such a relatively small sample. There is evidence to suggest larger samples and improved procedures would yield more impressive results.

Finally, these findings suggest further research is needed to refine this method for measuring audience evaluations of news media performance or content, and continue to explore the possible impact of these audience perceptions on news media use patterns.

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THE COORIENTATION MODEL AS A MEASURE OF ORGANIZATIONAL IMAGE

Ned Browning

Government agencies exist to serve the public. However, taxpayers often misunderstand and thus cannot take advantage of many specific services. Agencies need to understand the way their publics perceive them. The coorientation model of communication (McLeod & Chaffee, 1973) can be used to gauge public agencies' and their taxpayer clients' perceptions of each other. The result is a measure of organizational image.

One Agency's Response

The Challenge

An agency that operates under close internal and external scrutiny is the Cooperative Extension Service of the United States Department of Agriculture (USDA) and the nation's land grant universities. Its enabling legislation, the Smith-Lever Act, 7 U.S.C. sec. 341 (1914), sets the goal:

> to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same.

Sawer (1984) describes the situation in which the agency exists today:

> It (is) no longer enough to report dollars spent, on what, and with what good intentions.... (T)he Farm Bill of 1977...mandated large-scale evaluations of the social and economic consequences of Extension programs.

Additionally, the Secretary of Agriculture instituted systematic evaluation in 1972 (Gross, 1977).

The Response

The Extension Service's response to these mandates has been to implement a nationwide accountability and evaluation program. In addition, there is a developing emphasis on the marketing of its services. This application of a business concept to public services has become a significant part of government publicity (Rathmell, 1971).

Built on Kotler's (1979) principles of social marketing, it incorporates more than the commonly perceived idea of marketing as selling. It involves discovering what the public needs, analyzing what the organization can do to meet those needs, developing programs and services responsive to those needs, delivering the programs and evaluating them. More systematic measurement of the public's needs and the corresponding development and presentation of programs to meet those needs is a basic requirement.

The Alabama Cooperative Extension Service (ACES), with agents in all 67 counties, has entered the marketing process with a pilot audience survey to determine needs, awareness and image. Three counties were chosen to represent the state's administrative districts and a cross-section of the rural-urban spectrum.

Related Literature

Coorientation

The coorientation model for measuring communication is grounded in a synthesis of five schools of thought (McLeod & Chaffee, 1973, pp. 470-471): the consensus approach of Wirth (1948); the symbolic interactionist view associated with Cooley (1902) and Mead (1932); Sullivan's (1953) social concept of personality and psychotherapy;

Newcomb's (1953) coorientational model; and, the "person perception" literature. Most notable among these lines of thought are symbolic interaction and Newcomb's ABX coorientational model.

Symbolic interaction. Cooley's (1902) concept of the "looking-glass self" holds that it is the interaction of our internal knowledge of self and our perceptions of what others think of us that forms our "real selves." Mead (1934) views personality, or self, as a result of interaction between mind and society. Language, or symbol system, is central to this development. Shared meaning for a symbol leads to its becoming a "significant symbol" which facilitates shared behavior. These premises lead to an analysis of communication as the process in which the mind, self and society develops.

Newcomb's coorientational model. Often labeled the "ABX Model," Newcomb's (1953) coorientational model deals with person's simultaneous orientation to a given object:

> Certain observable group properties are predetermined by the conditions and consequences of communicative acts.
>
> The initial assumption is that communication among humans performs the essential function of enabling two or more individuals to maintain simultaneous orientation toward one another as communicators and toward objects of communication (p. 392).

Coorientation models. In the mid-1960s, several scholars developed coorientation-type models (Laing, Phillipson & Lee, 1966; Scheff, 1967; Chaffee & McLeod, 1968). As a measurement strategy, Chaffee and McLeod's coorientation model (Figure 1) deals with Newcomb's A, B, and X. It measures understanding and agreement between the two communicating parties about object X. It measures

Figure 1

Public--Extension Coorientational Dyad
(based on McLeod & Chaffee, 1973)

(A) Public cognitions about information needs	Understanding or Agreement	(B) Extension Service cognitions about information needs
Congruency	Accuracy	Congruency
(A') Perception of Extension's cognitions		(B') Perception of Public's cognitions

congruency, or how each party perceives the comparability of his orientation to X with the other's orientation toward X. And, it measures the accuracy of one's perception of the other's assessment of X relative to the other's actual assessment. In the present study, X is information needed to improve the quality of one's life.

The Chaffee-McLeod model was soon applied beyond the interpersonal level to collectivities or groups (Grunig, 1972; Stamm & Bowes, 1972; Broom, 1976; Meiller, 1977; Karbon, 1980). Grunig and Stamm (1973) point out that coorientation-type studies of organizational communication date to the 1950s (Odiorne, 1954; Kerr & Speroff in Van Zelst, 1952).

Extension Education

The Extension educational system is identified in the diffusion of innovation tradition (Rogers, 1983). It consists of the change agent, the opinion leader and the adopting public.

Basic to Extension educational philosophy is grassroots input into program planning (Rogers, 1983). The ideal process involves (1) the local agent's consulting the public in a county, (2) that agent's reporting the local needs to the state land grant university, (3) the university's, often in concert with the USDA, conducting problem-solving research related to the needs, and (4) resulting recommendations' being reported back to the communities in needs.

A key element in this process is the county Extension council, composed of local opinion leaders. However, as Rogers (1983) warns, those opinion leaders often become more like the change agents and lose understanding contact with the general public. "Front-end"

market research should alleviate this problem. Its direct contact with potential clients should circumvent ingrained biases, and provide decision-makers with clearer assessments of local needs.

Research Questions

Evaluation of Extension's coorienting relationship with its constituent publics follows three paths of inquiry:

1. What are the real needs of the public in the specific Alabama counties? The Extension programming decision-making process needs to be validated by an independent study of the general public. One measure would be the level of agreement between Extension and the public concerning needs.
2. What is the public perception of the ACES in the given counties? The accuracy of that perception, relative to the actual substance of the organization, is the first element of an image measure.
3. How does the public's assessment of local needs match with its perception of Extension's assessment? A greater level of congruence indicates an image of an organization more salient to the respondent.

The coorientation model is the measurement device (Figure 1). The general public and county agents are the coorienting parties under scrutiny. The approach is similar to that of Karbon (1980), who studied the relations between the Wisconsin Department of Natural Resources and its publics in two counties.

The Design

The Cooperative Extension Service is a locally focused agency, so there is no true statewide entity to study. It is manifest in the public mind on a county-by-county basis. Therefore, a study of this sort must concentrate on individual counties. The three pilot counties are Butler (rural; population 17,000), Jackson (rural/suburban; population 51,000), and Houston (fast-growing urban with strong agricultural interests in the rural area; population 75,000).

Sampling Procedure

Each county is viewed as a discrete entity, with no inferences made to the rest of the state from combinations of data. Thus, there had to be a representative sample of sufficient size to make inferences county by county. The unit of analysis is households.

The sample was drawn by Survey Sampling, Inc., of Westport, Connecticut. Their data base is a compilation of all nationwide telephone listings (updated quarterly) and census information. The listings are cross-referenced by zip codes, census tracts, and telephone exchanges. The sample is drawn in "replicates," or representative subsamples. In the study's implementation, exhaustive effort was made to assure that each replicate was completed before the next one was started.

Implementation

A preliminary survey of the general public was conducted in October and November, 1985, to determine public needs for various services, categorized under the areas which Extension is capable of serving (PDEMS, 1983). The results of that survey are being used by

the county agents to develop a marketing plan (specific programs and attendant publicity). After portions of the plan are put into effect, a second survey is planned to determine changes in public and agency perceptions.

The questionnaire was administered, via telephone, to the public and the county agents. There are no indications in the related literature that a coorientation study has been attempted by telephone interview. This most notably creates a premium on the time available for conducting an interview.

Due to organizational deadlines for the study's results and the complexity of the original instrument, modifications were made in the Houston County questionnaire. The result was a higher response rate to the coorientation component (Table 1). With this factor in mind, the analysis reported here deals only with the Houston County data.

Results

The public questionnaire consisted of six sections: an introductory question rating the quality of life; public ratings of their information needs; public awareness of ACES; public perception of ACES information needs ratings; public media use habits; and demographics. Agents were asked about their ratings of local information needs and the public's ratings.

Public Information Needs

The original intent was to have open-ended questions for respondents to indicate their salient needs. Such an approach satisfies one of Chaffee's (in Karbon, 1980) warnings about psuedo-

Table 1

Cooperation Rates for Coorientation Questions:
Differences Between Original and Modified Instrument

	Aware respondents		
	Responses	Refusals	Unaware
Houston Co. (modified)	115	35	115
Jackson Co. (original)	76	34	162

Chi square = 16.29, df = 2, alpha = .05, significant

	Aware respondents		
	Responses	Refusals	Unaware
Houston Co. (modified)	115	35	115
Butler Co. (original)	72	18	116

Chi square = 8.05, df = 2, alpha = .05, significant

Houston Co. n = 265
Jackson Co. n = 272
Butler Co. n = 206

data, those answers which respondents give in response to questions which are not really relevant to their particular situations. However, pre-test of such questions revealed that the approach made the interview too long to be managed by telephone.

Grunig (1983) emphasizes assessing the communicating solutions to needs which can reasonably be met by programs for which an organization is equipped. So, the alternate strategy was to ask questions related to information which the Extension Service can offer. The questions were gleaned from Extension program development materials (PDEMS, 1983) and from information gained in the open-ended pre-test. They were then reviewed by program administrators responsible for the different areas covered.

The Houston County instrument consisted of seventeen questions basically asking, "How great is your need for information about...?" Respondents were asked to rate their needs on a zero to seven scale. The option of answering "zero" allowed them to express disinterest in any given subject. From these basic needs determinants, the agents and administration will be able to make programming decisions (Table 2).

Awareness of Extension

In the general public, only those persons revealing an awareness of Extension were asked to respond to coorientation ratings. This procedure is based on the premise that lack of knowledge of extension would preclude any possibility of coorientation.

Another of Chaffee's (in McLeod & Chaffee, 1973) warnings about psuedo-data concerns the necessity of A's and B's being

Table 2

Houston County, Alabama
Public and Extension Needs Assessments Compared

"Quality-of-life" Information needed	(A) Public rank	(mean)	(B) Extension rank	(mean)	(A') Public's perception of Extension rank	(mean)	(B') Extension's perception o the Public rank	(mean)
Health	1	(3.96)	6	(6.29)	7	(4.66)	10.5	(4.86)
Home grounds care	2	(3.92)	1.5	(6.71)	5	(5.03)	2	(5.71)
Improving local job opportunities	3	(3.85)	17	(3.86)	16	(3.89)	10.5	(4.86)
Personal resource management	4	(3.77)	9.5	(5.71)	12	(4.21)	5	(5.29)
Taking advantage of community services	5	(3.52)	15	(4.57)	6	(4.88)	14.5	(4)
Youth development	6	(3.51)	1.5	(6.71)	8	(4.63)	6.5	(5.14)
Stress management	7	(3.43)	14	(5)	17	(3.68)	8.5	(5)
Improving human relationships	8	(3.33)	12.5	(5.29)	15	(4.04)	12	(4.71)
Housing and home furnishings	9	(3.3)	11	(5.57)	13	(4.09)	13	(4.43)
Preventing drug and alcohol abuse	10	(3.2)	7.5	(6)	10	(4.4)	6.5	(5.14)
Improving public services	11	(3.15)	16	(4.29)	11	(4.25)	17	(3.43)
Raising fruits and vegetables	12	(3)	3.5	(6.57)	3	(5.3)	3	(5.71)
Foods and nutrition	13	(2.9)	3.5	(6.57)	1	(5.64)	1	(5.86)
Caring for or making clothes	14	(2.8)	7.5	(6)	9	(4.52)	14.5	(4)
Canning and freezing foods	15	(2.67)	5	(6.53)	2	(5.32)	4	(5.43)
Preventing unwanted teen pregnancy	16	(2.43)	9.5	(5.71)	14	(4.04)	8.5	(5)
Raising livestock for food	17	(2.25)	12.5	(5.29)	4	(5.06)	16	(3.86)

A-B Agreement
B-A' Accuracy
B-B' Congruency
A-A' Congruency
A-B' Accuracy

Results

A-B Agreement: Kendall's Tau = -0.037, Z = -0.216, non-significant
A-B' Accuracy: Kendall's Tau = 0.104, Z = 0.600, non-significant
B-A' Accuracy: Kendall's Tau = 0.502, Z = 2.890, p < .001
A-A' Congruency: Kendall's Tau = -0.191, Z = -1.071, non-significant
B-B' Congruency: Kendall's Tau = 0.570, Z = 3.343, p < .001

Note: The "public" subjects in this analysis are respondents to a telephone interview who demonstrated a knowledge of their local County Extension Service. The "Extension" subjects are the local County Extension agents.

Public (A) n = 115
Agents (B) N = 7

simultaneously oriented toward one another. If the Cooperative Extension Service does not exist in the public's cognitive domain, the public cannot coorient with it. Thus, this question acts as a filter for the coorientation questions which follow.

Besides being a filter question, it reveals the degree of public awareness of ACES. An earlier study (Mullins, 1982) indicated, by default, a statewide awareness level of 77 percent when the respondents were asked simply to rate the effectiveness of the Extension Service. Following Chaffee's (in Karbon, 1980) psuedo-data contentions that people will blithely answer questions for which they have no true knowledge, this rating is suspect. In the present study, a stricter identity criterion was applied in which the respondents had to specifically name a county agent or give the location of the county office. The result was an identity level of 57 percent in Houston County.

Coorientation

These questions were identical in content and format to the needs questions; however, they required the respondents to reify the Extension Service. They ask the respondents to "put themselves in the agents' shoes" and answer the questions as they perceived the Extension Service would answer. Conversely, the county agents were asked to rate their priorities for meeting public information needs and to reify the public's view. The public's and agents' responses were compared using Kendall's tau rank order correlation (Table 2).

Agreement. A negative correlation coefficient (tau=-0.037) hints at a disagreement between the public's and agent's information needs rankings. In addition, the lack of statistically significant

correlation shows a need for administrative attention relative to the organization's programming.

Accuracy. A low coefficient (tau=0.104) indicates that the agents' perception of the public does not correlate with the public's ratings of information needs. However, the public has an accurate appraisal (tau=0.502) of the views of Extension. This indicates that the persons aware of the oganization understand it.

Congruence. A non-significant and negatively oriented correlation coefficient (tau=-0.191) indicates a low salience between the public and ACES as perceived by the respondents. Couple this with the high accuracy rating and the disturbing picture of an understood, yet not-so-relevant, organization begins to take shape. To emphasize the potential problem, there is a strong indication (tau=0.570) that the agents feel their ratings of public information needs are congruent with the public's, yet they are not, as indicated by the non-agreement.

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VOLUNTARY CENSORSHIP: GOVERNMENT CONTROL OF INFORMATION DURING WORLD WAR II

George C. Johnson

Of all the rights and freedoms of the American people freedom of the press is a legacy inherited from the Framers of the Constitution. The press largely views itself as a medium of communication informing people about many things, in particular—government. Government, on the other hand, views its function as promoting and protecting society. A contest is established between these two entities: [1] One protecting for the good of society and the other informing for the good of society. What happens when these entities are threatened? The first reflex of the government is to protect itself and restrict or block information that is presented to the public. This restriction of information can be called censorship. According to Robert E. Summers, censorship is a two-way street. "From one direction comes the news that is independently gathered by the press, and the comment and exposition based on that news. From the other comes the news over which the government has control." [2] What does the government of a First Amendment society do about the press during war time? Does it allow criticism of the war effort? Does it allow for a free flow of information policy?

In an attempt to answer these questions this study examined how the United States Government handled press censorship during World War II. Because much of the press censorship of the Second World War is rooted in the government's handling of press censorship in World War I, a brief overview of censorship during the First World

War will be included. Press control during the Second World War will be examined via the three branches of government, i.e., the executive, legislative, and judicial. The emphasis will be upon the executive branch because of its active role. The press' reaction to the government's efforts will be included in the general discussion of each point. Finally, some conclusions will be drawn as to the role of government in control of information in a war atmosphere. In other words, what has American learned about information control after two world wars?

CENSORSHIP DURING WORLD WAR I

The circumstances leading up to and surrounding World War I were different from World War II. Likewise, the censorship practices between the two world wars varied. The roots of censorship, however, practiced in World War II can be traced to the First World War. The actual framework of censorship for World War I began before the declaration of war on April 6, 1917. The U.S. Navy conducted a study of censorship of the press as early as 1907, but there were not any recommendations for legislative enactments as a result of the study. [3]

As war became more imminent in 1915, the War Department undertook the task of examining censorship and by 1916 the army and navy recommended a "bill empowering the President, in time of national emergency, to issue a proclamation prohibiting publication of news relating to [the] armed forces." [4] Secretary of War Newton D. Baker established a Bureau of Information in June 1916, which became the only source of information for the press from the War Department. [5] By August 1916, Secretary Baker had written to

Edwin Y. Webb, chairman of the House Committee on the Judiciary, to introduce legislation on press censorship. Webb introduced a bill in February 1917 that proposed to punish with life imprisonment anyone passing information to the enemy. [6] There was opposition to the bill once it was introduced, but in general the need for censorship outweighed the need for the free flow of war information.

By March 1917, the Navy Department was censoring radio stations, all cable stations and voluntary censorship of newspapers was requested in regards to shipping news. [7] When war was declared on April 6, 1917, the censorship legislation that Webb had introduced was soon to be ratified by Congress. On June 15, 1917, the Espionage Act was passed. This act was also enforced in World War II, and a revised form of it can still be activated any time the United States declares war.

President Wilson created the Committee on Public Information (CPI) on April 28, 1917, by executive order. This board was comprised of newspaperman George Creel as the chairman, and the Secretaries of State, War, and Navy. [8] George Creel said that the purpose of the committee "was a plain publicity proposition, a vast enterprise in salesmanship, the world's greatest adventure in advertising." [9] Creel built the CPI to a work force of 150,000 people to carry out its many and varied functions. [10]

In addition to the CPI and the Espionage Act, two other laws were passed which strengthened the powers of the government over the flow of information. The Sedition Act passed in May 1918 broadened the Espionage Act of 1917 by "making it a crime to write or publish any disloyal, profane, scurrilous or abuse language about the form of government of the United States or the Constitution, military or

naval forces, flag or the uniform or to use language intended to bring these ideas and institutions into contempt, scorn, contumely or disrepute." [11] There had been numerous horsewhippings, tarrings-and-featherings, and at least two known lynchings prior to the passage of the Sedition Act. This act was seen as necessary to help subside some of the war hysteria that was sweeping the country at that time. [12]

The Trading-with-the-Enemy Act [13] of October 1917 allowed censorship over any communications coming in or out of the United States. It also provided the Post Office with the power to confiscate any translations of newspapers or magazine articles published in a foreign language. [14] The intent of the Trading-with-the-Enemy Act was to censor any messages between the United States and other foreign countries, and this was accomplished through the establishment of the Censorship Board. [15] This was a six-man board comprised of George Creel, as representative of the CPI, the Secretary of War, the Secretary of State, the Secretary of the Navy, the Postmaster General, and the War Trade Board. [16] With the establishment of the Censorship Board the CPI became an "informal" agent for newspaper and periodical censorship, as well as the formal sponsor of all war propaganda. A requirement of this act made every foreign language newspaper or periodical in this country furnish the Postmaster General's office with a translation of every article mentioning the war, any foreign government, or the government of the United States. This act "provided the instrumentality for a powerful preventive censorship of the foreign language press." [17].

While trying to cover the war in Europe American foreign corres-

pondents were not without censorship. All dispatches to the states had to be cleared by the American Expeditionary Forces. Many correspondents waited until they were back in the United States to write their stories. Often correspondents never got close to the front lines and some stories were fabricated. [18] In addition, the correspondents could neither quote officers of the A.E.F., either directly or indirectly, nor be allowed to speak directly to soldiers without an officer's permission. [19]

Through the CPI, and the use of the Espionage Act, the Sedition Act and the Trading-with-the-Enemy Act, the government could virtually control war information in any publication or broadcast within the country. The Navy Department was mainly responsible for censoring the radio stations, and cable transmissions. The CPI had little control over broadcast, but was mainly concerned with supplying war information to both newspapers and radio stations. The CPI could only approve or disapprove articles voluntarily submitted to it by publishers previous to publication. [20]

The largest number of prosecutions was under the Espionage Act. Of the nearly 2,000 prosecutions and the more than 100 censorship cases tried during the World War I period, more than half of each were tried under the Espionage Act. Many individuals, organizations and publications were prosecuted on "intent" to persuade disloyalty rather than disloyalty. [21] "In most cases the actual substance of the speech or the literature involved criticism of the government, the war's aims, or the draft rather than any concrete or proved interference with the operation of the war." [22]

The second major censorship authority was the Post Office. The

Postmaster General was a member of the Censorship Board. This board often recommended to the Postmaster General that certain publications be barred from the mail for containing "seditious" material. [23] The Postmaster General could suppress anything he wished without "citing evidence or giving reason." [24] Also, the decision by the Postmaster General was virtually without appeal. The courts during this time period did not reverse a single decision of the Postmaster General. [24] Not only did the Postmaster General's authority extend to publication, but it also extended to censorship of the mail or persons who were found guilty of violating the Espionage Act.

The Department of Justice had agents in the field examining materials for potentially seditious information; in addition, an Executive Postal Censorship Committee was established. [25] This committee, located in New York City, was set up to assist the Censorship Board in examination of printed material. "Local postmasters throughout the nation were directed to act as local censors, reporting to the Washington office anything which they judged derogatory to the government or subversive to the conduct of the war." [27] There were also "thousands of amateur censors," who reported information which they thought was in violation of the Sedition Act. Much of the information was "the result of personal hatreds, spite, imagined injury, or attempts to gain unfair competitive damages." [28]

During the first year of the Espionage Act approximately 75 newspapers either lost their mailing privileges or retained them by agreeing not to print anything about the war. [29] Perhaps two of the more noted cases involved a magazine called The Masses and a

socialist newspaper called the Milwaukee Leader. The Masses was banned by the Postmaster General's Office in August 1917 for publishing four antiwar cartoons and a poem defending two radical leaders. The indictment against the editors was eventually dropped in 1919. [30] The Milwaukee Leader was not as lucky. Not only was the Leader's second-class mailing permit revoked, but all incoming mail was withheld. Finally, in June 1921, the Postmaster General restored the second-class mailing privileges. Meanwhile, the Leader had taken its case to the Supreme Court in 1921, but the Supreme Court upheld the Postmaster General and ruled against the Leader. [31] Schenck v. United States [32] was another Supreme Court case involving a violation of the Espionage Act. Schenck, who mailed a leaflet to prospective draftees, tried to persuade men to "assert their rights" and not register for the draft. Justice Holmes delivered the opinion of the Court and developed what had been dubbed as the "Clear and Present Danger" test to the First Amendment. The test permitted the punishment of expression when "the words used are used in such circumstances and are of such a nature as to create a clear and present danger that they will bring about the substantive evils that Congress has a right to prevent." [33] Schenck was found guilty, however, for his expression against the Conscription Act, which violated the Espionage Act of 1917.

When an armistice was called for in November 1918, the pressures of censorship waned on the homefront. The CPI was dissolved at the end of 1918, but the legislative laws were not totally neutralized for some time. The Espionage Act of 1917 and the Censorship Board of the Trading-with-the-Enemy Act were repealed when an Armistice was signed, but the Sedition Act was not repealed

until March 1921. The Sedition Act was used a year after the Armistice had been signed when the Attorney General raided the offices of the Seattle Union Record and suppressed the paper because of its political views. Also, the New York Call, a socialist newspaper, was still barred from the mail 13 months after the Armistice for its political views. [35]

In 1942 George Creel, summarizing the effectiveness of the voluntary censorship used in World War I, said:

> Secrecy is essential in connection with many activities of the war machine, although the need is often exaggerated beyond the bounds of common sense, but censorship of the press in any form is not the answer, never was the answer and never will be the answer. Not in this country at any rate. Just as it failed in the First World War, so will it fail again, for the causes of failure are inherent in the plan.

Creel called voluntary censorship a "disastrous experiment" and stated, "just as I had been America's first official censor so would I live in history as the last." He was not the last official censor. As the actors took the stage for the Second World War some 21 years later the rusty wheels of censorship from World War I were cleaned and oiled for a new approach to an old issue.

CENSORSHIP DURING WORLD WAR II

The Second World War did not present the same problems of information control as did World War I. The temperament of the country was different and the circumstance leading up to the involvement of the United States was different. One scholar noted that this was the most popular war that America became involved in and the problems of civil liberties were not as strained. [38] Largely, the government seemed better prepared from an informational perspective.

By the beginning of World War II virtually each government agency had its own office of public information. This presented more of a problem of coordination than censorship. The coordination of information did become a problem, more from a political than a functional perspective. Toward the end of the war the Republicans were accusing the Office of War Information of being the personal mouthpiece of the Democrats rather than just handling information about the war.

Censorship in wartime is a two-part operation. The first part is censorship at the source. This means that part of the truth may be withheld. Any information that is felt to be beneficial to the enemy is edited out of official announcements. For example, the army and navy might announce total casualities but may not give out casualty lists. [39] The second part of the system is self-censorship by the press and radio. This required the press to hold the information until it could be officially announced. [40]

Even though George Creel admonished the idea of voluntary censorship by saying it did not work, the government decided this was the best means of information control. There were violations of the Censorship Code handed down by the Office of Censorship but most were accidental, and no legal action was taken against the violators. Usually a newspaper was sent a warning notice. Censorship of the press did ease as the war progressed, almost vanishing by the end of the war. Radio, however, was censored more than the print media because of the immediacy of its transmission and its wide area of broadcast. There was a real fear, particularly after Pearl Harbor, of what information the enemy could gain by listening to radio broadcasts.

Legislation Affecting Censorship During World War II

When war was declared in December 1941 the Espionage Act of 1917 was activated. Also, sections of the Trading-with-the-Enemy Act of 1917 were enacted. The provisions, however, allowing for the Censorship Board had been repealed in 1921 along with the Sedition Act of 1918.

The Espionage Act was amended March 28, 1940. Generally, it outlined the punishment of those supplying information to the enemy or doing anything to promote the success of the enemies of the United States. The provisions were specific in each section as to the proscribed action and the punishment of that action, while the United States is at war. The punishments ranged from a fine of $10 to $20,000 or 10-to-20 years imprisonment or both. [41] The penalties varied with the severity of the crime. For example, a person who communicates, delivers or transmits any information to any foreign government about the national defense of the United States "shall be punished by death or life imprisonment." [42] This provision is applicable at any time not just when the United States is at war.

The act that had the potential threat and still can threaten a free press as well as civil liberties is the Smith Act, which was passed on June 28, 1940. [43] The main difference between the Espionage Act of 1917 and the Smith Act is that the Smith Act is applicable anytime, not just during war. The provisions of the Smith Act are specific and the Act was amended in 1956 to increase the fine to $20,000 or 20 years imprisonment. [44]

The Judicial Branch During World War II

Two Supreme Court decisions prior to World War II should be mentioned before examining the Court decisions during the war years. The first case, Gitlow v. New York, [45] resulted from the arrest of Benjamin Gitlow in New York for violation of the New York Criminal Anarchy statute, which forbade the publication or distribution of information advocating, advertising, or teaching the overthrowing of organized government by violence. [46] The Supreme Court upheld the lower court's conviction of Gitlow and gave New York the power to penalize such advocacy. The main significance of the decision came in dictum which stated that First Amendment rights of individuals could not be infringed upon by the states. [47]

The second case that set an importnt legal precedent was Near v. Minnesota. [48] A Minnesota statute had been written to enjoin newspapers such as The Saturday Press from publication. The Saturday Press was considered by the statute as a "malicious, scandalous, and defamatory" newspaper. [49] The Court ruled that the Minnesota law operated as a privious restraint which infringed on freedom of the press. [50]

One Supreme court decision during the years of the Second World War involved a conviction under the Espionage Act. In Gorin v. United States [51] the Espionage Act was upheld as constitutional. Mikhail Gorin, a citizen of the U.S.S.R., purchased from Hafis Salich, a naturalized U.S. citizen formerly from the U.S.S.R., over 50 reports and photographs of activities of the Japanese in the United States. Contained in this information were photographs showing Japanese people swimming near naval war vessels of the United States. Gorin and Salich were both convicted and fined

$10,000 each. Gorin was sentenced to six years in prison and Salich was sentenced to four years in prison. [52]

Four years later in a U.S. Circuit Court of Appeals decision involving another violation of the Espionage Act the court ruled in favor of the defendant. In United States v. Heime [53] Heime was found not guilty of unlawfully disclosing information affecting the national defense. He had collected information about airplanes from public sources and had sent that information to Germany.

There was only one U.S. Court of Appeals decision handed down during the war years under the Smith Act. In Dunne et al v. United States [54] 29 men were brought to trial for violation of the Smith Act. Ten of the men were found not guilty, one died before the trial and 18 were found guilty. The men were convicted on conspiracy charges for publishing communist propaganda which advocated a violent overthrow of the government and encouraged resistance to the draft.

The Federal courts in general were not hearing many cases on individual liberties or press freedom. Few cases were heard under the Espionage and Smith Acts. As can be noted in Heine and Gorin, the courts relaxed their decisions over the course of the war years.

The Executive Branch During World War II

The executive branch of government was by far the most active of the three branches of government in regard to censorship during the Second World War. By the beginning of hostilities, practically all government agencies had some form of public information department which released information to the press on a daily basis. No longer could one agency such as George Creel's Committee of

Public Information of the First World War handle the volume of information or, for that matter, try to censor information from these various agencies. [55]

There were also many departments of information that were created by the "New Deal" administration that had overlapping duties and functions. Some of these departments were brought together under an umbrella organization such as the office of War Information; some agencies were left independent of the other departments for political reasons, such as the Office of Inter-American Affairs; and some offices were created from scratch, such as the Office of Censorship and the Office of Strategic Services. When Roosevelt issued his Executive Order 9182 on June 13, 1942, he simplified and confused the functions of the various offices of information. [56] By the end of the war the various offices were functioning smoothly with each other. Different types of problems arose, however. The Republicans in Congress began viewing information agencies as propaganda instruments of the Democrats and the Roosevelt administration. Consequently, some budgets were cut and people were released from their positions.

Essentially, there were two offices that dealt with information during the war: The Office of War Information and the Office of Censorship. The Office of War Information was responsible for propagation of war information for the media both domestically and overseas.

The major difference between the two wars was that the functions of OWI and the Office of Censorship were combined in the Committee of Public Information of the First World War. In the Second World War a separation was perceived to be necessary. A

brief overview of the functions is perhaps necessary to contrast how information was handled between the two wars.

The Office of War Information was created out of four previous government agencies by Executive Order 9182. [57] The three main duties of OWI can be summarized as follows: (1) to inform the public through the various media as to the status and progress of the war; (2) to coordinate the war information activities for all Federal departments; and (3) to analyze information concerning the war effort and advise the agencies on how to disseminate that information to the public. [58]

Elmer Davis, a radio news commentator for the Columbia Broadcasting System, was appointed by President Roosevelt as the director of OWI. The OWI had problems from the beginning and was distrusted by the press as well as Congress. [59] The OWI was placed virtually in a "no-win position." A few difficulties encountered by the OWI were: (1) the military did not care to gather or report facts to the public; (2) Congress thought OWI was Roosevelt's personal propaganda vehicle; (3) the press didn't like obtaining information from an official spokesperson. [60]

Most of the problems were inherent within the system. When OWI was terminated in the summer of 1945, however, critics generally gave it high marks for keeping the American people informed on the progress of the war and "for telling the world of America's aspirations, through the United Nations for world peace." [61]

The OWI did censor information and it could be considered censorship at the source since it was the official source of war information. Its role was more one of passive censorship. The regional offices, however, often over stepped their authority by

dictating to newspapers how long a story would be, the size of the headline and the placement of the story within the newspaper. [62] The Foreign Branch of the OWI sent out an average of 25,000 words of daily news by cable and radio to supplement the press in 16 countries. In addition, morale programs, music, news and features were developed and transmitted for the growing number of troops overseas. [63]

The major difference between OWI and the Office of Censorship is one of perspective: OWI's function was considered positive in nature while the Office of Censorship's function was considered negative. OWI's function was positive in that as an agency it assembled and released information about the war to newspapers, magazines and other information sources. The Office of Censorship had to keep information that would endanger the security of the United States. [64] Basically, the two major functions of the Office of Censorship were: (1) to censor all communication entering and leaving the country and (2) to administer a voluntary code of wartime practices for the radio and press. [65]

Byron Price, who was for many years an executive for the Associated Press, was named the Executive Director of the Office of Censorship in December 1941. Price had worked in Washington as bureau chief before he was transferred to New York City where he was executive news editor for AP for six years. Having someone of Price's clout in the directorship enhanced the credibility of the office from the press's point of view. [66]

The Office of Censorship was organized into six divisions of which the postal and cable divisions were the largest. These two divisions were responsible for preventing military information from

falling into the hands of the enemy and to prevent trade with the enemy. The censorship conducted by these divisions was mandatory [67], and both divisions had heavy work loads. The postal division, for example, in May 1944 received from Germany 18,000 letters daily for the German prisoners of war which had to be read by the censorship office. [68]

The Broadcasting and press divisions had small staffs as compared to the postal and cable divisions. The directors of the two divisions coordinated the news flow between the divisions. The major difference between the two divisions was that radio was more controlled than the press. For example, various programs of the radio stations were kept off the airwaves. One major censored program was the weather. Other programs included those in which requests for certain types of songs, or quiz shows, or a man-on-the-street interview, or any program where an enemy agent could gain access to a microphone. The Office of Censorship made it very plain to radio stations that no one was to gain access to a microphone unless the radio station personnel could personally vouch for that person. [69]

Censorship of the press was entirely voluntary as was stressed by the press division. Price referred to it as, "a patroitic contribution by editors and broadcasters to the national security." [70] This division consisted of a staff of nine men, all newspapermen on leave of absence from newspapers across the country. These nine men averaged 25 newspaper stories per day, but occasionally they were inundated with stories. For example, during the D-Day invasion, 2,500,000 words were read in five days! [71]

A code, the Code of Wartime Practices for the American Press,

was first issued in January 1942 and was revised every six months. This code was mailed out to approximately 2,700 daily newspapers, 11,000 weekly newspapers, 7,000 general periodicals, 5,000 trade, scientific and professional journals, 14,000 business house organs and about 9,000 miscellaneous publications. [72] The code had 17 equal clauses and each clause set forth the information that was not to be published unless cleared by the appropriate authority.

What happened to an editor or broadcaster who broke the code? The editor or broadcaster would receive a notice by mail or if it was important, a telephone call or telegram from the Office of Censorship seeking his cooperation. Broadcasters and newspapers adhered to the code fairly well. Usually if the code was broken a newspaper or radio station would write the Office of Censorship complaining. Often the public would complain. The people would cut stories out and mail them to the censorship office, but most of these type of stories were harmless. [73]

The press praised the Office of Censorship for doing a thankless but necessary job, and in particular praised Byron Price. An editorial in Editor & Publisher stated, "[W]e step aside for the moment as editors individually to tell the nation's readers how fortunate we all have been to have had Mr. Price as the chief censor." [74]

Although there was not a single official violation of the Censorship Code, there were many censorship incidents occurring across the United States during the Second World War. For example, just as in World War I, publications had their mailing permits revoked by the post office. One of the first publications with its second-class mailing permit revoked was Social Justice. This

publication by the Reverend Charles Coughlin was accused of violating the Espionage Act of 1917. Rev. Coughlin, who used the publication to express his opinions on political and social views, suspended publication in May 1942 in order to avoid prosecution. The Philadelphia Herold (sic) also had its second-class mailing permit revoked for violating the Espionage Act. It had reprinted articles from Social Justice. Also, a third publication, Publicity, had a federal grand jury return an indictment on 11 counts of violating the Espionage Act. The Publicity was a weekly printed in Witchita, Kansas. [75]

Newspapers were not the only media affected. For example, all 14,600 copies of a houseorgan of an aircraft plant in Seattle was not allowed to be mailed out because it had reported a visit to the plant by President Roosevelt. [76] Another newspaper was warned about the publishing of birthday notices of servicemen. The birthday notices gave information such as specific bases of the servicemen. [77] Other situations arose which created problems for the media. For example, a tornado, which struck near Memphis, Tennessee, killed 124 people, and the damages were scattered over a three-state area. Permission from the Office of Censorship was not received to transmit the storm warning until hours after the storm had struck. [78]

CONCLUSIONS

Does voluntary censorship work? George Creel stated that it did not work in the First World War, and recommended not to use it again. But it was used again in the Second World War. Censorship did not prevent the public from receiving a reasonably accurate

picture of the war. Fortunately, after the war the press was allowed to operate freely once again.

The propaganda division of government information, however, did not have much success in the Second World War. It was criticized both by the press and by Congress, which may have affected OWI's credibility. In World War I the CPI was not accused of trying to propagandize one political view.

Generally in both wars, the government allowed for a free flow of information, except for such items as troop and ship movements. At least in theory this point was sound. In the First World War newspapers expressing opposition to the war effort were harassed by the government more than in the Second World War. But even in the Second World War harassment of newspapers expressing opposition to the war was found. The area of expressing opposition was narrowed even more with the passage of the Smith Act in 1940. The Supreme Court stated that the government has a right to protect itself and that the "clear and present danger test" is confusing as well as hard to apply. But how far does that right of protection go? Obviously, it goes further in wartime than in peacetime.

But then there are incidents like Grenada which is a classic example of how the government can shut the door on the flow of information. There was no voluntary censorship just censorship. The legislative and judicial precedents which are in place during war unfortunately do not shed much light on this type of combat situation. The executive branch precluded the press from the island. What should the procedure be for press coverage in the future? An answer was to create a press pool of elite reporters to cover such combat events. But is this a workable solution?

With each future combat situation that the United States faces the problems will be different. After both world wars a "red scare" swept the country. Was this a result of censorship being lifted or a cry for more censorship from a few demagogues to protect what had been fought for? The cause in both world wars was freedom, but freedom for whom? Of freedom from what? In today's society with the advent of television and the ability to bring war into the living rooms of America, maybe a form of censorship will not be needed or maybe the government will see that it is needed more or maybe press pools will be the answer. Joseph Matthews summarized the area of war censorship very poignantly, "One of the greatest dangers of wartime censorship is that its spirit rather than its corpse may linger on. The precise extent of this danger has yet to be determined." [79]

NOTES

[1] See Potter Stewart, "Or of the Press," Hastings Law Review 26 (1975): 631-37.

[2] Robert E. Summers, ed. Wartime Censorship of Press and Radio (New York: H. W. Wilson Co., 1942), p. 19.

[3] James R. Mock, "Words that Won the War," in Wartime Censorship of Press and Radio, ed. Robert E. Summers (New York: H. W. Wilson Co., 1942), p. 64.

[4] Ibid., p. 65.

[5] Ibid., p. 66.

[6] Ibid., p. 67.

[7] Ibid.

[8] Ibid.

[9] Edwin Emery and Michael Emery, The Press and America, 4th ed. (Englewood Cliffs:Prentice-Hall, Inc., 1978), p. 330.

[10] Ibid.

[11] 18 U.S.C. 2386 (1948).

[12] Lucille B. Milner, "Wartime Censorship in the United States," in Wartime Censorship of Press and Radio, ed. Robert E. Summers (New York: H. W. Wilson Co., 1942), p. 80.

[13] 50 U.S.C. 3 (1916).

[14] Emery and Emery, p. 331.

[15] Milner, p. 81.

[16] Ibid.

[17] Ibid.

[18] George Creel, "The Plight of the Last Censor," Collier's 107 (May 24, 1942): 14. Censorship became so bad at one point in the war that the war correspondents went on strike refusing to write anything until the censorship standards were relaxed. The correspondents won out. M. L. Stein, Under Fire: The Story of American War Correspondents (New York: Julian Messner, 1968), p. 63.

[19] Cedric Larson, "Censorship of Army News During the World War, 1917-1918," Journalism Quarterly 17 (December 1940): 320.

[20] Milner, p. 82.

[21] Ibid., p. 79.

[22] Ibid.

[23] Ibid., p. 82.

[24] Ibid., p. 83.

[25] Ibid.

[26] Ibid.

[27] Ibid., p. 82.

[28] Ibid., p. 83.

[29] Emery and Emery, p. 331.

[30] Ibid.

[31] United States, ex rel., Milwaukee Social Democratic Publishing Co. v. Burleson, 225 U.S. 407 (1921).

[32] 249 U.S. 47 (1919).

[33] Ibid., p. 52.

[34] Milner, p. 85.

[35] Ibid.

[36] Creel, p. 13 (emphasis in original).

[37] Ibid.

[38] Clinton L. Rossiter, Constitutional Dictatorship: Crisis Government in the Modern Democracies (Princeton: Princeton University Press, 1948), p. 276.

[39] Summers, p. 42.

[40] Ibid., p. 43.

[41] See 18 U.S.C. 2388 (1948), 18 U.S.C. 793 (1961), 18 U.S.C. 794 (1961), for specific descriptions.

[42] The sections for the Espionage Act of 1917 can be found in 18 U.S.C. 791-98 (1961).

[43] 18 U.S.C. 2386 (1961).

[44] The provisions of the Smith Act include:

Whoever knowingly or willfully advocates, abets, advises, or teaches the duty, necessity, desirability, or propriety of overthrowing or destroying the government of the United States.

Whoever, with intent to cause the overthrow or destruction of any such government prints, publishes, edits, issues circulates, sells, distributes, or publicly displays any written or printed matter advocating, advising, or teaching the duty, necessity, desirability, or propriety of overthrowing or destroying any government in the United States by force or violence.

Whoever organizes or helps or attempts to organize any society, group or assembly or persons who teach, advocate or encourage the overthrow or destruction of any such government by force or violence. 18 U.S.C. 2385 (1948).

[45] 268 U.S. 652 (1925).

[46] Ibid., p. 654.

[47] Specifically the statement of the Court was:

For present purposes we may and do assume that freedom of speech and of the press—which are protected by the First Amendment abridgment by Congress—are among the fundamental personal rights and 'liberties' protected by the due process clause of the Fourteenth Amendment from impairment by the States. Ibid., p. 666.

[48] 283 U.S. 697 (1931).

[49] Ibid., p. 698.

[50] Ibid., p. 666.

[51] 312 U.S. 19 (1941).

[52] Ibid., p. 22.

[53] 151 F.2d 813 (2nd Cir. 1944), cert. denied, 328 U.S. 833 (1945).

[54] 151 F.2d 137 (8th Cir. 1943), cert. denied, 320 U.S. 790, aff'd mem., 320 U.S. 814. and cert. denied, 320 U.S. 815 (1945).

[55] Robert L. Bishop and LaMar S. Mackay, "Mysterious Silence, Lyrical Scream: Government Information in World War II," Journalism Monographs, No. 19 (Minneapolis: University of Minnesota Press 1971): 14.

[56] Ibid., p. 20.

[57] The agencies were: the Office of Facts and Figures (OFF); the Office for Emergency Management (OEM); the Office of Government Reports (OGR); and the Office of Coordinator of Information Services. Cedric Larson, "OWI's Domestic News Bureau: An Account and Appraisal," Journalism Quarterly 26 (March 1949): 5.

[58] Ibid., p. 4.

[59] "Elmer Davis: Report to the President," ed. Ronald T. Farrar, Journalism Monographs No. 7 (August 1968): 2. See also "Elmer Davis Talks Himself into a Senate Inquiry," Editor & Publisher 76 (June 19, 1943: 22 and "350 from OWI Washington Office Seek Other Jobs," Editor & Publisher 76 (July 10, 1943): 9.

[60] Farrar, p. 2. See also Larson, p. 12. Some newspapers even refused to print the news releases. "California Publishers Condemn Recent OWI Censorship," Editor & Publisher 76 (March 6, 1943): 10.

[61] Farrar, p. 3. See also Frank L. Mott, American Journalism: A History, 1690-1960, 3rd ed. (New York: The Macmillan Co., 1962), p. 766.

[62] "Informal Censorship," Editor & Publisher 75 (December 19, 1942): 22.

[63] Charles M. Hillten, "How the OWI Operates Its Overseas Propaganda Machine," Journalism Quarterly 19 (December 1942): 354.

[64] Frank C. Clough, "Operations of the Press Division of the Office of Censorship," Journalism Quarterly 20 (September 1943): 220.

[65] J. First, "Freedom of Press in Wartime," Pennsylvania Bar Journal Quarterly 14 (April 1943): 226.

[66] Ibid., p. 221.

[67] Edward N. Doan, "Organization and Operation of the Office of Censorship," Journalism Quarterly 21 (September 03.

[68] Ibid., p. 213.

[69] Ibid., p. 210.

[70] Ibid., p. 205.

[71] "Censors Handle 2,500,000 Words in Five Days," Editor & Publisher 77 (June 17, 1944): 18.

[72] Clough, p. 222.

[73] Ibid., p. 223.

[74] "Out of Business," Editor & Publisher 78 (August 18, 1945): 40.

[75] "Three Publications Denied 2nd Class Mail Privileges," Editor & Publisher 75 (May 9, 1942): 6.

[76] "Navy Officer Held Paper from Mails," Editor & Publisher 75 (October 10, 1942): 52.

[7] "Peru (Ind.) Daily Tribune Warned," Editor & Publisher 75 (September 26, 1942): 11.

[78] "Tornado A Radio Secret For Hours until Wartime Clearance Given," Variety 145 (March 25, 1942): 25.

[79] Joseph J. Matthews, Reporting the War (Minneapolis: University of Minnesota Press, 1957), p. 216.

EFFECTS OF FILM CRITICISM ON AUDIENCE INTEREST, ATTENDANCE, AND EVALUATION

David P. Badger

> Sneer: But surely, Mr. Puff, there is no great mystery in your present profession?
>
> Puff: Mystery! Sir, I will take upon me to say the matter was never scientifically treated, nor reduced to rule before.
>
> —Richard Sheridan, 1781, The Critic, Act I, Scene 2

The effects of mass communicated arts criticism on potential and actual audiences have been hotly debated for centuries, but the scientific evidence of media impact remains virtually non-existent.

"Now, in reality, the world have [sic] paid too great a compliment to critics and have imagined them men of much greater profundity than they really are," Felding wrote in 1749. "From this complaisance the critics have been emboldened to assume a dictatorial power, and have so far succeeded that they are now become the masters" (p. 176). Throughout the twentieth century, film critics in particular have been singled out, and sometimes attacked, for their so-called "power" over their audiences—from the Chicago Tribune's "Kitty Kelly" (a pseudonym for motion-picture critic Audrie Alspaugh), the first independent critic who "attained a remarkable power over pictures in Tribune territory . . . and who could make or break a picture in the Middle West" (Ramsay, 1926, p. 681), to New Yorker critic Pauline Kael and others (Shaw, 1977; English, 1979). Such claims, however, remain little more than anecdotal speculation, for scientific research about film audiences is surprisingly inadequate, and "systematic, empirical investigation

of the public's use of movie reveiws is virtually nonexistent" (Austin, 1983, p. 158).

One national survey of critics found that "more than two-thirds believed they did have some effect on their readers or viewers" (English, 1979, p. 115), and a nationawide Harris poll for the National Research Center of the Arts found that 37% of Americans cited "what critics said about a film" as "very important" or "somewhat important" in deciding whether to go to a movie (1975, p. 41). Farber, on the other hand, notes that "evidence suggests that reviews carry little weight at the box office" (1976, p. 420), and the chief film buyer for the National General theatre chain told Los Angeles Times press critic Shaw, "If you think people who want to see films . . . are going to change their minds because the critics pan the movie, you're crazy" (1977, p. 135). Concludes one former Newsweek film critic: "Reviewing films, then, is like reviewing or criticizing a blizzard or war. The critic is laughably impotent, [and] has no influence either with the film-makers or with the film audiences" (Slavitt, 1967, p. 337).

Burzynski and Bayer, in the flawed field experiment, attempted to measure film patrons' "appreciation" of a motion picture by first exposing the patrons to positive, negative, or no prior verbal comments in a theatre lobby setting (1977). Three independently operating pairs of confederates were instructed to pose as legitimate theatre patrons and to make comments (while existing) about the film audible to potential subjects who were waiting behind a retaining rope in the lobby. When the film was over, a uniformed theatre employee distributed questionnaires with items on age, sex,

and a rating scale of the film just seen. Unfortunately, Burzynski and Bayer, while seeking to measure audience response to prior information (generated by word of mouth from peer strangers rather than from recognized film critics), make assumptions and rely on measurement procedures which cast doubt on their findings. (Their assumption that all subjects were exposed to the treatment, and their distribution of questionnaires "randomly to 10 patrons sitting toward the rear of the theatre" [Burzynski and Bayer, 1977, p. 216] is highly unorthodox.) Data obtained from the manipulated subjects' enjoyment ratings in this study indicated that "audience appreciation of motion pictures is alterable by prior information cues" (Burzynski & Bayer, 1977, p. 215)—or, more specifically, that subjects exposed to negative prior information about the film The Sugarland Express subsequently rated the film lower than did those exposed to positive prior information. (Some patrons, in fact, even redeemed their tickets for refunds at the box office after overhearing negative comments.)

In one earlier experimental attempt to study the effect of prior information on film audiences, investigators at the Air Force Personnel and Training Center tested the hypothesis that lecture supplements stressing significant scenes and events in a commercial motion picture would have an effect on military trainees' attitudes measured afterwards (Staudohar & Smith, 1956). The researchers found that subjects hearing lectures before, after, or part before and part after viewing were generally more favorable toward the sequences and subjects emphasized than those who saw only the film.

"Isn't there a cause-and-effect relationship between the critics' revilement of movies like Gable and Lombard, Lucky Lady and

At Long Last Love and the public's subsequent reluctance to see them?" asks Shaw (1977, p. 135). Or, as CBS-TV Vice President Steinberg muses:

> Films on which were bestowed brilliant reviews may fail dismally at the box office, while the popular imagination may be titillated by a movie that suffers nothing but slings and arrows from the critics. All of which raised several interesting questions, the most fundamental of which is precisely how effective is the motion picture critic? How much impact does his review have on the newspaper reader and moviegoer? Do audiences go to movies because of, or in spite of, good or bad reviews? (1972, p. 239)

To measure the purported influence of film review on potential and actual film audiences, Wyatt and Badger (1984) conducted two early experiments—one examining the effect of review direction on audience interest in a film, the other assessing the effect of reviews read before viewing a film on post-viewing evaluation. Student subjects in the first controlled laboratory experiment were randomly assigned questionnaire packets containing positive, mixed, and negative review treatments of the British film _The National Health, or Nurse Norton's Affair_, and a control group received a review of _Anne of the Thousand Days_. One-way analysis of variance indicated that review direction significantly affected interest in the film compatible with the direction of the review at the .05 level of significance, although the Scheffe multiple-range procedure indicated that the means of only the positive review group and the negative review group were significantly different.

For the second experiment, 171 Middle Tennessee State University student subjects were randomly assigned positive, mixed, negative, or no reviews of the Larry Peerce film _A Separate Peace_ to assess the effect of reviews read before viewing a film on post-

viewing evaluation of that film. After reading the Separate Peace reviews, subjects were shown the film and afterwards asked to evaluate it employing a semantic differential-type scale. A one-way analysis of variance indicated that review direction significantly affected ($p<.01$) evaluation of the film compatible with review direction, and the Scheffe procedure indicated that the means of the control group and the negative review group were significantly different and that the mean of the positive review group was significantly different from the means of both the negative review group and the mixed review group (Wyatt & Badger, 1984, p. 876).

Neither the National Health, or Nurse Norton's Affair film interest experiment nor the Separate Peace film evaluation experiment involved any behavioral measures of a realistic or "real world" nature, however, so a third and considerably more complicated research experiment was designed to measure the influence of review treatments not only on potential audience members' interest in seeing a film but also on actual audience members' subsequent attendance of that very same film at a later date, as well as their evaluation of the film after the viewing experience.

Hypotheses

The following hypotheses were adopted:

H1: Review direction (positive, mixed, negative) will significantly affect film-viewing interest compatible with the direction of the review.

H2: Review direction will significantly affect subjects' taking of a free pass to the film compatible with the direction of the review.

H3: Review direction will significantly affect subjects' film attendance compatible with the direction of the review.

H4: Review direction will significantly affect subjects' bringing of a guest to the film compatible with the direction of the review.

H5: Review direction will significantly affect subjects' post-viewing evaluation of the film compatible with the direction of the review.

H6: Review direction will significantly affect the accompanying guests' post-viewing evaluation of the film compatible with the direction of the review.

H7: Audience ratings of review treatments will be related significantly to film-viewing, interest, taking a pass, film attendance, and post-viewing evaluation of the film.

H8: Self-reported film attendance priorities will be related significantly to film-viewing interest, taking a pass, and actual film attendance, regardless of review treatment.

(Other hypotheses related to subjects' ratings of the reviews in categories such as credibility, informativeness and interest are reported elsewhere in a paper accepted for presentation at the International Communications Association annual convention in Chicago in May 1986.)

Methods and Procedures

The film selected for this experiment was a British production which subjects were highly unlikely to have seen or heard about due to its limited theatrical release in the United States in 1974 during the American Film Theater's first-season film subscription

series. The motion picture, Butley (starring actor Alan Bates), was based on the hit British stage play by Simon Gray and directed for the screen by the distinguished playwright Harold Pinter.

A realistic positive review of Butley was first written by this author—a film critic for Nashville Public Radio since 1977—and then negative and mixed reviews of the same film were constructed with the assistance of critic-colleague Robert Wyatt by substituting polar-opposite adjectives or mixed or neutral adjectives, while simultaneously holding all movie-background information and plot summary constant. A "non"-review was later constructed as a control by omitting all evaluative adjectives and phrases in the full text of the positive/mixed/negative reviews, while retaining all background information and plot detail.

All four review treatments were set in 9-point newspapar type and newspaper-column format under a fictitious byline and then positioned under the same neutral headline: "British Actor Alan Bates/Brings 'Butley' To Screen."

In April 1985, in three administrative sessions, questionnaire packets that included positive, mixed, negative, and non-review treatments of Butley were randomly assigned to a total of 318 MTSU students enrolled in three sections of introductory mass media courses. Each packet also included a cover letter; background data, media-use, and standard demographic questionnaires; a scale for rating level of interest in seeing Butley (and other films); a scale for evaluating the film review; and a free pass that admitted the bearer (and one optional guest) to a sneak screening of Butley on campus that week.

Subjects who later voluntarily attended one of the four afternoon and evening screenings of the motion picture--which was rented in 16mm format from the film's sole national distributor, Films Inc.--were administered a package containing a "Participant Questionnaire" with demographic questions and a measurement scale for post-viewing evaluation of the film. Participants' guests were administered a similar "Guest Questionnaire," which included an identical film-evaluation scale, as well as a series of background data, media-use, and standard demographic questions.

Dependent Variables

Measures of dependent variables for this experiment were chiefly of two sorts: (1) behavioral measures (e.g., counting the number of free passes torn off the questionnaire packets; counting the number of participants who showed up--voluntarily--for screenings of Butley; and counting the number of guests brought by participants; and (2) attitudinal-opinion measures provided by subjects' responses to questions and by ratings on scales included in the questionnaire packets.

Dependent variables are listed below:

(1) Taking a free-admission pass.

(2) Attendance at a screening of Butley.

(3) Bringing a guest to a screening of Butley.

(4) Level of interest in seeing Butley.

(5) Evaluation of the film Butley.

(Evaluations of the Butley review treatment for credibility, informativeness, and interest were also included, and reported elsewhere.)

Intervening Variables

Numerous demographic, media-use, film-attendance, and other descriptive measures were included in the questionnaire for later isolation to determine whether any particular characteristics might affect behavioral responses or attitude/opinions. These variables included age, sex, race, university class, academic major, several media-use variables, and a variety of film-attendance variables.

Independent Variable

The independent variable was the degree "positiveness" of a realistically prepared and professional typeset review of the motion picture Butley, presented in four levels of treatment: positive, mixed, negative, and "non"-reviews.

Each administration of the experiment's questionnaire packets lasted approximately 20 minutes. Oral instructions were given to subjects (who were randomly assigned positive, mixed, negative or non-reviews) to read the cover-letter directions before proceeding, and then to continue to the end and to answer all questions. The cover letter bore the name/logo of a fictitious Chicago-based research firm ("Audience Research Associates"), and, at the end of the questionnaire packet, a half-page free-admission pass (printed on blue paper, to distinguish it from the rest of the packet) was attached which included a hand-stamped code number which would later be used to match the subject-participant directly to a positive, mixed, negative, or non-review treatment.

Results

The first hypothesis—that review direction will significantly affect film-viewing interest compatible with the direction of the review—was accepted. The Tukey-HSD procedure indicated that the mean gain scores of groups assigned mixed, positive, and non-review treatments were significantly higher than the negative review group's but did not significantly differ from one another.

The second hypothesis—that review direction will significantly affect taking a free-admission pass compatible with direction of the review—was rejected. Passes were taken by an overwhelming 65% of subjects, regardless of direction (results, however, were generally in the predicted direction).

The third hypothesis—that review direction will significantly affect subjects' film attendance compatible with review direction—was also rejected. Only 4% of all subjects attended the film.

The fourth hypothesis—that review direction will significantly affect participants' bringing of a guest to the film compatible with the direction of the review—was also rejected. (Only 2% of all subjects brought guests to the film.)

The fifth hypothesis—that review direction will significantly affect subject-participants' post-viewing evaluation of the film compatible with direction of the review—was rejected.

The sixth hypothesis—that review direction will significantly affect guests' post-viewing evaluation of the film compatible with the direction of the review—was rejected.

The seventh hypothesis—that audience ratings of review will be

related significantly to film-viewing interest, taking of a free pass, film attendance, and post-viewing evaluation of the film--was accepted with some modification. Review interest was moderately but significantly correlated with interest in seeing Butley (r=.48, partial r=.42, $p<.001$) and directly accounted for 23% of the variance. Review credibility informativeness, however, was not significantly correlated with interest in seeing the film. Initial film-viewing interest was also a weak but significant predictor of taking a free-admission pass (r=.20, partial r=.13), as was post-treatment film-viewing interest (r=.23, partial r=.15). Post-treatment film-viewing interest, however, provide the only significant predictor of film attendance by subjects and, although weak, accounted directly for 5% of the variance (r=.22, partial r=.13). No predictors of guest attendance or of participant or guest post-viewing film evaluation were significant.

A path model employing dummy variables for review treatments in a series of multiple-regression equations provided some clarification of the relation of dependent variables to one another and to the independent variables. This model demonstrated that initial film-viewing interest was a moderate (but significant) predictor of subsequent interest in the film after exposure to review treatments, regardless of review direction, and accounted directly for 17% of the variance (B=.34, r=.41, partial r=.39). Initial interest in viewing Butley, then, proved to be a better predictor of post-treatment viewing interest than the direction of the review treatment.

In sum, the path model indicates that any effect of review treatment on the taking of a free-admission pass or on actual

attending of the film is indirect and operates through the influence on post-treatment interest in viewing the film. The interest in viewing prior to exposure to review treatments, however, proves to be a significant predictor of taking a free-admission pass, as is post-treatment interest in viewing. Furthermore, film-viewing interest after exposure to review treatments is also a significant predictor of actual film attendance. In general, then, measures of interest are ultimately the best predictors of behavioral measures.

Hypothesis eight—that self-reported attendance priorities will be related significantly to film-viewing interest, taking a pass, and attending a screening, regardless of direction of review treatment—was accepted with modification, and will be reported elsewhere.

Limitations, such as the "unnatural" setting for a portion of this experiment and the use of college undergraduates as subjects, would naturally minimize the external validity or generalizability of these findings, as might the threat of "contamination" by subjects discussing the reviews they read after the laboratory experiment but prior to the "field" experiment. Still, the artificial conditions in the laboratory (forced exposure, etc.) may actually provide a more effective means to study the problem and to determine cause and effect than might other conceivably more realistic conditions. And the use of a free pass to encourage attendance for the second part of the experiment bears a resemblance to commonly accepted Hollywood practice of distributing passes (usually via newspaper ads or mailings) to admit the bearer and one guest to a free sneak preview of an upcoming theatrical release.

Empirical results generated by this experiment will require further study by the author before generalizations to study film audiences can be posited. However, it is hoped that even this only partially successful experiment might contribute to the appallingly small body of scientific research into criticism of the popular arts by the mass media, and perhaps even contribute to settlement of the ongoing controversy among members of the critical community regarding the potency and impact of film criticism today.

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PATTERNS OF CONSUMER INTEREST IN SPECIALIZED NEWS

Thomas E. Blick, Herbert H. Howard, and Jan P. Quarles

Many recent events, including space shots, organ transplants, and breaking the 1500-level on the Dow Jones Average, have dramatically focused the public's attention on special types of information. While continuing to cover traditional subject matter, the news media have elevated their attention level on information from the fields of medicine, science, business, and consumer affairs. This broadened emphasis on special types of news is based on the assumption that the public is widely interested in these areas of activity.

The purpose of this study was to determine how much interest the public has in each of these four categories of news and which media they use to obtain these types of information. To find the answers, a team of researchers in the College of Communications at The University of Tennessee conducted a telephone survey during the summer/fall of 1985. The sample frame consisted of 500 households, selected randomly from the telephone directory for Knoxville and Knox County, Tennessee. [1] A total of 310 completed interviews was obtained, for a completion rate of 62%. The 310 persons interviewed consisted of 111 male (35.8%) and 199 female (64.2%) respondents over the age of 12. [2]

Each respondent was asked to describe his or her level of interest in each of the four special news categories--medical, science, business, and consumer economics--by choosing one of four descriptors: (a) strongly interested, (b) moderately interested,

(c) neutral, and (d) disinterested. Examples were given for each of the types of news stories.

For each category, respondents who indicated either strong or moderate interest were asked to tell which news media were used to obtain that type of information. The interviewers then recited a list of media which included (a) local newspapers, (b) national newspapers, (c) magazines, (d) local television affiliate stations, (e) cable TV networks, (f) radio, and (g) other. Respondents were allowed to mention as many of the media as they wished, with no attempt made to force a single choice.

Findings

The results shown in Table 1 indicate a very substantial interest in all four categories of special news by the population surveyed, with more than 50% indicating either strong or moderate interest in each. The strongest level of interest by far was in medical information, with 92.3% of all respondents indicating either a strong or moderate desire for information in this category. Consumer economics news was a close second with 83.5%, followed by science (64.8%) and business news (56.5%). Using a chi-square test, the subject matter and level of interest proved to be significantly ($p<.001$) related, demonstrating that, in this study, the amount of interest shown in a type of news report does have a significant relationship to the topic of that report.

Interest levels by subject and sex of respondents are given in Table 2. These data reveal the same rank order of interest in the four subjects (medicine, consumer economics, science, and business) by both males and females. Again, both sexes rated all categories

Table 1

Interest Levels by Subject (Percentages)

Type of News	N	Interested	Not Interested
Science	310	64.8	35.2
Medical	310	92.3	7.7
Business	310	56.5	43.5
Cons. Ec.	310	83.5	16.5

Table 2

Interest Levels by Subject and Sex (Percentages)

Type of News	Sex	N	Interested	Not Interested
Science	M	111	72.1	27.9
	F	199	60.8	39.2
Medical	M	111	86.5	13.5
	F	199	95.5	4.5
Business	M	111	57.7	42.3
	F	199	55.8	44.2
Cons. Ec.	M	111	82.0	18.0
	F	199	84.4	15.6

at interest levels above 50%. Significantly, however, males appear to be much more interested in science news than women (72.1% to 60.8%), while women are more interested in medical information than are men (95.5% to 86.5%).

When interest levels are broken down into all four categories (strong, moderate, neutral, and disinterested), medical and consumer economics news clearly stand ahead of science and business information, as shown in Table 3. Medical news was rated of strong interest by 71.9% of all respondents, far higher than any of the other news categories. Consumer economics was next, rated a strong interest by nearly one-half (47.7%) of the respondents. Science and business news were relatively low at the strong-interest level, but were accorded high moderate interest levels by the sample population. In both Tables 2 and 3, the relationship between the amount of interest and the type of news report continues to be significant ($p<.001$) when the respondents are classified by sex (Table 2) and when interest levels are broken down into finer gradations (Table 3).

Clearly, from these data, the greatest amount of interest in these special news fields is in medical and consumer economics information. Although medicine and consumer economics are skewed toward the positive interest position, both business and science news are more evenly distributed and show a substantial disinterest level.

Chi-square tests indicate tendencies of respondents toward some relationships between types of news and sources used to obtain that news, although those relationships failed to reach significance at the .05 level. Given this limitation, as shown in Table 4, the

Table 3

Interest Levels by Subject (Percentages)

Type of News	N	Strong	Moderate	Neutral	Disint.	No Ans.
Science	310	19.0	45.8	18.7	16.5	0
Medical	310	71.9	20.3	4.5	2.9	0.3
Business	310	20.3	36.1	21.0	22.6	0
Cons. Ec.	310	47.7	35.8	11.6	4.8	0

Table 4

Sources of News by Subject (Percentages)

Type of News	N	Local Paper	National Paper	Magazine	Local TV	Cable TV	Radio	Other	None/ NA
Science	201	63.2	18.9	66.2	77.6	44.2	43.8	3.5	0.5
Medical	286	67.1	18.2	62.6	76.6	42.3	39.5	10.5	1.7
Business	175	70.9	29.1	58.2	72.6	39.4	42.9	7.4	2.3
Cons. Ec.	259	73.0	18.9	53.7	75.3	40.5	44.8	6.9	1.9
Average		68.6	21.3	60.2	75.5	41.6	42.8	7.1	1.6

respondents ranked the media in the following order as preferred sources of specialized news and information: (1) local television affiliates, (2) local newspapers, (3) magazines, (4) radio, (5) cable networks, (6) national newspapers, and (7) other sources.

Although local TV affiliates, with their dramatic capability for sight, sound, and motion transmission, led in all four categories, local newspapers were nearly as strong with business and consumer economics news. Strength in these two categories no doubt reflects the ability of newspapers to provide extensive detailed information.

Although the remaining media trailed local TV affiliates and local newspapers by substantial margins, certain exceptions stand out in the findings. First, magazines were the second choice of respondents for science news, ahead of newspapers but behind television. Second, although cable networks and radio, were virtually tied for fourth place, each was given a slight preference in specific news categories. Radio led cable slightly for business and consumer economics news, while cable was minimally ahead of radio for science and medical information. Third, the use of national newspapers was much higher for business news than for any of the other categories. Finally, other information sources were rated much higher for medical information than for any other category. The respondents' answers suggest the importance of interpersonal contact, especially with physicians and other medical personnel, as a source of medical information.

Certain trends emerge from Table 5, tentatively indicating general media preferences between males and females for specialized news forms, as well as media preferences for certain types of news.

Table 5

Sources of News by Subject and Sex (Percentages)

Type of News	Sex	N	Local Paper	National Paper	Magazine	Local TV	Cable TV	Radio	Other	None/ NA
Science	M	80	62.5	25.0	62.5	73.8	47.5	38.8	2.5	1.3
	F	121	63.6	14.9	68.6	80.1	42.1	47.1	4.1	0
Medical	M	96	63.5	18.8	56.3	71.9	46.9	33.3	11.5	2.1
	F	190	68.9	17.9	65.8	78.9	40.0	42.6	10.0	1.6
Business	M	64	70.3	35.9	50.0	67.2	51.6	37.5	12.5	1.6
	F	111	71.2	25.2	63.1	75.7	32.4	45.9	4.5	2.7
Cons. Ec.	M	91	71.4	23.1	46.2	69.2	42.9	42.9	4.4	2.2
	F	168	73.8	16.7	57.7	78.6	39.3	45.8	8.3	1.8
Overall	M		66.9	25.7	53.7	70.5	47.2	38.1	7.7	1.8
	F		69.4	18.7	63.8	78.3	38.5	45.4	6.7	1.5

Local TV stations and newspapers were first and second choices of both sexes. Of the other media, however, women seem to rely more on magazines and radio than do the male respondents, while men indicated a tendency to watch cable TV networks and to read national newspapers more than did the female respondents in this survey.

More specifically, males tend to read national newspapers more so than women do for science, business, and consumer economics news. They also tend to use cable TV networks more than women do for all four categories of information, but their use of cable for business news far exceeded that by females.

In contrast, females tend to use magazines, local television affiliates, and radio more than do men for these categories of special interest news. The most stable usage pattern appears to be with newspapers, where margins of difference by sex are minimal. Non-media sources, with three exceptions, are minimally important for obtaining special news. These exceptions are with males and females for medical information and with males for news of business developments. Primarily these other sources consist of direct contact by respondents with medical practitioners and stockbrokers.

Implications

This study represents an attempt at understanding the growing importance of four types of specialized news and information to the public. Subject to the limitations of the sample community, it demonstrates substantial interest in each of the four categories of news. It also has established a hierarchy order of their importance among the respondents surveyed.

In addition, this study has indicated certain tendencies of the

population sampled toward media preferences used to obtain specialized news and information. Because chi-square tests failed to reach significance at the .05 level for media choices, a need exists for further study of the relationships between specialized news ctegories and media preferences.

ENDNOTES

[1] Knoxville has a population of about 180,000, and Knox County has about 350,000 inhabitants. This city and county are served by two local daily newspapers; five local television stations, including affiliates of ABC, CBS, NBC, and PBS; a well-established 20-channel cable system with more than 50,000 subscribers; and about 20 radio stations. Both the Wall Street Journal and USA Today are available on a same-day basis.

[2] A more detailed breakdown of respondents by age groups is available upon request.

DOGMATISM AND INTRINSIC RELIGIOUS ORIENTATIONS AS PREDICTORS OF GOOD NEWS/BAD NEWS PREFERENCE

Jeffrey L. Hoyer

Purpose and Significance

Audience studies are an important area within the field of communications research. One part of the audience studies area which has generated a lot of research is that of reader news interest. In the past, a large majority of the research in this area has attempted to study reader news interest by relating it to demographic variables. One area of reader news interest research which has often been neglected is the relationship that may exist between personality variables and news preference. The purpose of this study is to determine if scores on a 40-item dogmatism scale (Rokeach, 1956) and scores on an intrinsic religious orientation scale (Allport & Ross, 1967) are related to college students' preference for good news or bad news.

Dogmatism will be defined in this study as a person's degree of "general open-mindedness or closed-mindedness," as determined by the Rokeach Scale. Rokeach (1956) designed the scale to measure individual differences in openness or closedness of belief systems. Rokeach (1960) defined the extent to which a person's belief systems is open as:

> the extent to which the person can receive, evaluate, and act on relevant information received from the outside on its own intrinsic merits, unencumbered by irrelevant factors in the situation arising from within the person or from the outside.

For this study, Form E was chosen. Form E contains the best (according to Rokeach, 1967) 40 items from the 66-item Form D.

Widespread use of the scale in research also suggests the scale is valid as a measure of general dogmatism. For example, Vacchiano, Strauss, and Hockman (1960) cite more than 136 studies that have used the Rokeach scale and the scale continues to be one of wide use in research literature.

Dogmatism has been used as a variable in studies relating to information seeking (Innes, 1978; Kleck & Wheaton, 1967; Miller, N., 1965). Downs (1975), in a study relating dogmatism and self-esteem to news interests, noted that the higher the individual scored on Rokeach's dogmatism scale, the more the individual preferred to read unpleasant news. Downs' definitions for "pleasant" and "unpleasant" news were operational. He defined a "pleasant" news story as one reporting a pleasing, agreeable, "good news" event, and an "unpleasant" news story as one reporting distasteful, disagreeable, or offensive events; i.e., "bad news." Innes (1978) used Rokeach's Dogmatism Scale in a study of selective exposure as a function of dogmatism and incentive. He noted that respondents scoring below the median on the scale seemed more willing to expose themselves to material differing from their position. Those scoring above the median were more likely to select material supporting their own opinion or one even more extreme.

Intrinsic religious orientation, another independent variable included in this study, will be defined as "the direct application of one's religious beliefs to daily life and the response to it" as determined by an intrinsic religious orientation scale (Allport & Ross, 1967).

Intrinsic religious orientation was selected as an independent variable in this study because of the importance of religion in

influencing an individual's personality. Several prominent psychologists such as Allport, Jung, and Erikson have placed great importance on religion as a "unifying philosophy of life" and an integral part of personality (Hergenhahn, 1980). According to Hergenhahn (1980), Allport believed that the person is by no means simply a passive reactor to the environment, but that a person's behavior is generated from within by the personality structure. Since this study focuses on the selection of good or bad news, the intrinsic religious dimension was selected because the scale should indicate an application of the individual's belief system to daily life and hence, possibly why a person might select either good or bad news. Both dogmatism and intrinsic religious orientation appear in the literature as "personality" variables.

Berelson, Bradshaw, and Waples (1960) suggest that a reader's predispositions affect reading in two ways: conditioning his selection of publications to read and his interpretation of what he reads.

Recent newspaper readership studies indicate that the newspaper readership is now fragmented into diverse audiences (Marbut, 1977). Even though the industry recognizes and is trying to address the fragmented market, the problem of identifying the news preferences of each audience segment still remains.

Until recently, most news preference studies have focused on demographic variables such as age, sex, income, education, and community size. Such studies have not taken into consideration the individual personality characteristics of the individuals making up the samples. Such oversight is a weakness since personality characteristics may provide a clue to "why" readers are motivated to

make their news selection. Such predispositions are important.

Tannenbaum and Greenberg (1968) suggested that studies of patterns of news selection may stress social and demographic variables and omit individual personality factors because such indices are hard to obtain in large-scale surveys. Donohew and Palmgreen (1971) expressed surprise that personality differences are often all but overlooked in selection of information studies.

Downs (1975) said that until the professional communicator goes beyond the usual social and demographic audience reports into exploratory studies of the motivational consequences of personality factors, he will be severely limited in his understanding of his news audience.

The Problem

This research will add to literature which attempts to determine "why" readers prefer certain types of news--which in this specific study will be good news or bad news. In the general context of communication theory, rather than studying the source of the message or its effects, this study will focus on the newspaper audience and its reading preference. Preference for good news or preference for bad news will serve as the two dependent variables in this study.

Hypotheses for this study are:

H1: Preference for bad news will be positively and significantly correlated with a measure of dogmatism.

H2: Preference for good news will be negatively and significantly correlated with a measure of dogmatism.

H3: Preference for bad news will be negatively and significantly correlated with a measure of intrinsic religious orientation.

H4: Preference for good news will be positively and significantly correlated with a measure of intrinsic religious orientation.

The Sample

The sample for this study consisted of 66 students in the College of Communications at The University of Tennessee during the spring quarter of 1985. On May 9, 1985, the students were asked to complete a "Reader Preference Survey Booklet" which contained 25 good and bad news headlines. The students were asked to rate the headlines indicating their degree of reading preference on a "thermometer scale" illustrated in the booklet. Approximately one week later, the same students were asked to complete an "Opinion Survey," consisting of Likert-scaled questions measuring dogmatism and intrinsic religious orientation. In addition, the survey requested demographic and sociographic information. The scaled questions were mixed to avoid a set bias. Our sample included 71% females, 29% males, an over abundance of 10-15% females compared to the usual distribution in journalism classes today. Lambert and Durand (1977) used such a sample to control sociodemographic variables such as age, education, income, occupation, and life-cycle changes. Such a sample is relatively homogeneous.

Preliminary Headline Coding

The research procedure required that the headlines used in the study be precoded for "good" news and "bad" news. Precoders for

this study used Haskins' (1982) coding instructions to code 25 news headlines. The headlines were typed on index cards for the sorting that was to be part of the coding procedure.

A class of eleven students in the College of Communications at The University of Tennessee judged the goodness or badness of the headlines. "Good" news or "bad" news was defined as agreement by eight or more coders on the positive or negative direction of the news. Any headlines not meeting the definition were not included in the study. Only three out of the 25 headlines were discarded.

Reader Preference Instrument Administration

Interest in reading the headlines was represented by scores on a 100-point thermometer scale. Respondents were told to give an item a "0" rating if they were certain they would not want to read it; a rating of 100 if they were certain they would like to read it; and any score between 0 and 99 depending on their interest in the article represented by the headline.

The headlines coded in the preliminary coding were incorporated into a "Reader Preference Survey Booklet." Each booklet contained a few paragraphs introducing the study and describing how to complete the booklet. Each page of the booklet contained one of the headlines, the reading preference scale (thermometer), and a blank space for the respondent's reading preference score for the headline shown on the page.

On May 9, 1985, a Reader Preference Survey Booklet was distributed to each of the voluntary participants in the classroom setting. Each of the respondents completed the example included in the booklet. When it was clear that everyone understood how to

complete the survey, the respondents were allowed to complete the instrument.

Opinion Survey Instrument Administration

An "Opinion Survey" (questionnaire) instrument was presented which contained Rokeach's Form E (40-question) Dogmatism Scale (1956) and the Intrinsic-Extrinsic Religious Orientation Scale (Allport & Ross, 1967). Additional demographic and media questions were also included in the instrument. These included questions about respondent age; class standing; sex; hours spend per week attending religious services; hours spent per week reading newspapers, reading magazines, listening to the radio, and watching television.

On May 14, 1985, the "Opinion Survey" instrument was administered. Multiple linear regression analysis was used to test the hypotheses in this study. Two models were created--a good news preference model and a bad news preference model. In each model, news preference was identified as the dependent variable. Dogmatism (defined as the cumulative dogmatism score), Intrinsic Religious Orientation (defined as the cumulative Intrinsic Religious Orientation Score), and the previously listed demographic variables were identified as the independent variables in the study. The software analysis system used was SAS 82.

Through analysis of variance the fitness of each model was determined and the contribution of each variable to the variation in the model noted. Results were analyzed regarding the value of each variable to the proposed hypotheses by comparing the analysis of variance results to the correlation matrix which identified the

significance, strength of correlation, direction of correlation, and relationship between variables used in the study.

Results

The general linear "good news" model, which included all the variables in the study which were suggested as affecting "good news preference," was:

Good News Preference = Dogmatism, Intrinsic Religious Orientation, Age, Paper (hours spent reading/week), Magazine (hours spent reading/week), Radio (hours spent listening/week), TV (hours spent watching/week), Class (level of education), Hrs/Rel (hours spent in religious services/week), and Sex (a dummy variable—male or female).

The "bad news" model was formated as follows:

Bad news preference = Dogmatism, Intrinsic Religious Orientation, Age, Paper (hours spent reading/week), Magazine (hours spent reading/week), Radio (hours spent listening/week), TV (hours spent watching/week), Class (level of education), Hrs/Rel (hours spent in religious services/week), and Sex (a dummy variable—male or female).

The computer programs for both models contained SAS proc commands to generate a correlation matrix, scattergrams (plots) of all variables, a general linear model for both models, and a distribution scattergram of predicted values.

The preliminary analysis of the "good news" model, which contained all variables initially included in the study revealed an F value of 1.91 and a P value of 0.066, which was not significant. The model had an R-Square value of 0.28 (the variables explained 28%

of the variance). With all variables included, none of the variables met an alpha level of 0.05, therefore none was significant (see Table 1).

The preliminary analysis of the "bad news" model, which contained all variables initially included in the study, revealed an F value of 2.23 and a P value of 0.03. The model had an R-Square value of 0.30. With all variables included, the variable "class" appeared to be significant with an alpha level of 0.002 (see Table 2). However, as is later shown in the correlation matrix, this independent variable did not correlate with the dependent variable but correlated with age, another independent variable.

The models themselves cannot be considered in isolation from the correlation matrices and other information contained in the scattergrams. A listing of correlated variables, the R values (represent strength of correlation) and the P values (represent level of significance) of each model is shown in Tables 3 and 4.

After studying the correlation matrices it was determined that because of the large number of independent variables within both models showing multicollinearity at very significant levels (note Tables 3 and 4) it would be necessary to execute a SAS "Proc Stepwise" procedure to identify the variables that would be most significant and contribute the largest R-Square to the model. Proc Stepwise is a procedure which sorts the variables and allows the researcher to see the contribution of each variable to the model. The procedure also helps to identify variables that can be removed because they do not account for variance in the model.

Based on the Stepwise regression coefficient, it was determined that the best "good news" model which yielded the most number of

Table 1:Preliminary Analysis:Good News /Variable Values

Source	F Value	P Value
Dogmatism	3.33	0.074
Int.Rel.O.	2.58	0.114
Age	0.30	0.589
Paper(reading)	3.69	0.060
Mag. (reading)	1.30	0.259
Radio (listening)	0.11	0.743
TV (watching)	0.57	0.453
Class	2.88	0.096
Hrs/Rel.	0.75	0.392
Sex	3.62	0.062

Table 2: Preliminary Analysis: Bad News /Variable Values

Source	F Value	P Value
Dogmatism	0.31	0.577
Int.Rel. O.	3.27	0.076
Age	1.88	0.176
Paper (reading)	2.91	0.094
Mag. (reading)	0.53	0.468
Radio (listening)	0.59	0.445
TV (watching)	0.59	0.445
Class	10.45	0.002
HrsRel	0.12	0.733
Sex	1.62	0.209

Table 3: Good News Model

Variables Correlated	R	Sig. Alpha=.05 P Value
Sex & Good News Pref.	-.319	.009
Dogmatism & Int. Rel. O.	.398	.001
Dogmatism & Sex	.286	.020
Dogmatism & Good News Pref.	-.229	.055
Int. Rel. O & HrsRel.	.554	.001
Age & Class	.462	.0002
Paper & Mag. Reading	.762	.0001
Magazines and Sex	.252	.046
TV and Sex	.257	.041

Table 4: Bad News Model

Variables Correlated	R	Sig. Alpha=.05 P Value
Dogmatism & Int. Rel. O	.387	.001
Dogmatism & Sex	.312	.010
Int. Rel. O. & HrsRel.	.559	.001
Age & Class	.445	.0003
Paper & Mag. Reading	.758	.0001
Magazine Read. & Sex	.260	.035
TV & Sex	.320	.009

significant variables in relation to the best R-Square was the model:

Good News Preference = Dogmatism, Intrinsic Religious Orientation, Magazine, TV, Class, and Sex.

The R-Square value for this model was 0.252 with an F value of 2.93 and a P value of 0.015. Also, the variables included in the model accounted for 25% of the variance. The dependent variables that were significant in the model were Dogmatism (R=-.229, F=3.86, at an alpha level of 0.05); Time spent reading Magazines (F=6.98, at an alpha level of 0.01); and sex (R=-.319, F=3.86, at an alpha level of 0.05). The variable values for the Proc Stepwise selected Good News Model are shown in Table 5.

When comparing the variables that were significant in the model to the correlation matrix, it was noted that dogmatism and good news preference were significantly (0.05) correlated with an R value of -.229. Sex and good news preference were significantly (0.05) correlated with an R value of -.319. Magazine reading was not significantly correlated with good news preference, but was significantly (0.05) correlated to sex with an R value of .251.

Although all of the "bad news" models generated under proc stepwise procedure met significant acceptance standards, none of the independent variables in any of the bad news models correlated with the dependent variable, "bad news preference." It was determined that because of the strong correlations between the independent variables (note Table 4) and lack of any correlation between the dependent variable and any of the independent variables, the "bad news" models in this study are inadequate to support the study's hypothesis.

Table 5:Stepwise Selected Good News Model

Source	F Value	P Value
Dogmatism	3.83	0.055
Int.Rel.O.	2.34	0.132
Mag. (reading)	6.98	0.010
TV (watching)	1.58	0.215
Class	0.66	0.421
Sex	3.86	0.054

Summary

The findings of this study suggest the following in relation to the hypotheses suggested at the beginning of the study.

1. Preference for bad news will be positively and significantly correlated with a measure of dogmatism.

This hypothesis found no support in the study since there was no significant correlation between bad news and dogmatism. However, the high correlation between the independent variables in the bad news model may have affected the model's reliability. More research needs to be done to determine if a significant relationship between dogmatism and "bad news" preference exists.

2. Preference for good news will be negatively and significantly correlated with a measure of dogmatism.

This hypothesis found correlational support in this study. Analysis of the Good News Model revealed an inverse relationship between dogmatism and good news preference—the higher the good news preference the lower the dogmatism. The correlation between these two variables was -.229 with a significant alpha level of 0.05.

3. Preference for good news will be positively and significantly correlated with a measure of intrinsic religious orientation.

Intrinsic religious orientation was not found to be a significant predictor of good news preference in this study. Most research in the past which has included religious orientation as an independent variable has been done with groups from strong religious settings (churches, for example). The sample selected for this study was from a university setting. More research needs to be done to determine if the response of persons in this study is

characteristic of what can be expected from a university population.

4. Preference for bad news will be negatively and significantly correlated with a measure of intrinsic religious orientation.

Intrinsic religious orientation was not found to be a significant predictor of bad news preference in this study. None of the independent variables included in this study correlated with bad news preference. However, as suggested for hypothesis three, more research needs to be done in this area to determine if the findings in this study are consistent with similar samples from other academic settings.

In addition to those relationships noted in the hypotheses, it was also found that sex is a significant (alpha of 0.05, R=-.319) predictor of good news preference. Sex was included as a dummy variable with Females=0, and Males=1. Using these values as a multiplier times the estimated variance attributable to "sex," it would appear that females account for more of the variance than males. Since the correlation is inverse, it appears that women prefer good news less than men.

Discussion

Initial analysis of the data was difficult due to the obscuring effect caused by the large number of correlated independent variables. However, the secondary analysis performed using the Proc Stepwise procedure did much to improve the fitness of the good news model by removing variables that did not help account for the model's variation. For example, only two variables were eliminated through the procedure—age and paper (reading). Age was highly

correlated with class which remained in the model, and papers were highly correlated with magazines which remained in the model. The preliminary good news model had an F value of 1.91 and a non-significant P value of 0.06. No variables were significant contributors to the model at the 0.05 alpha level. The secondary analysis good news model selected through the Stepwise procedure had all but the two independent variables which have been mentioned as removed and the F value of the model rose to 2.93 with an increase of P value to a significant value of 0.015. Also, three variables emerged at a significant level. It is apparent that the sorting of the variables in the Stepwise procedure greatly clarified and strengthened the good news model.

The finding that the lower the dogmatism the higher the preference for good news is consistent with some of the earlier research (Downs, 1975; Innes, 1978). Less dogmatic persons will be ore open-minded. Robinson and Shaver (1969) note that highly dogmatic persons characteristically have high anxiety and high intolerance. If cognitive dissonance is at work, persons with high anxiety and high intolerance would probably perceive their world that way—characteristics that frequently are found in bad news. On the other hand, persons who are less dogmatic are more open-minded and probably have a more tolerant view on life, may have less anxiety and hence their reality would be the inverse of the dogmatic. Open-minded, more secure individuals would probably be drawn to good news which reinforces their views of the world as a tolerent, "open," place to interact.

The relationship suggested between sex and news preference (that women prefer good news less than men) has found some support

over the years in literature. Schramm and White (1949) noted that women read less public affairs news and editorials, but more crime and disaster news than do men. However, Carter and Clarke (1963) noted that there is no sex difference in interest in "disruptive" kinds of news (equivalent to Schramm's class I immediate reward news).

The fact that no significance was noted in this study relating intrinsic religious orientation to news preference could be due to sampling rather than non-existence of such a relationship. The scale has usually been used in settings where the chance of drawing a sample of such individuals is greater. Robinson and Shaver (1969) suggest that in a liberal setting such as a university, the potential exists for antireligious responses as well as large numbers of persons with extrinsic religious personalities rather than true intrinsic orientation. However, it is noted that in this study no significance was noted. Continued research is needed to determine if such persons exist and if they do, what affect such a psychological perspective would have on their attention to certain kinds of news.

Mention is also made of this study's inability to salvage the bad news model and extract significant meaning from the data. All models appeared to be significant however, even the Proc Stepwise approach was not able to unravel the multiple correlations between the various independent variables that caused fluctuating inconsistences from one bad news stepwise model to the next. Part of the problem can be blamed on the interrelationship of the independent variables, but one other possibility that should not be overlooked is that of variables following other than a linear

pattern. For multiple regression to work properly a linear relationship must exist. The fact that model values were high with tremendous fluctuations in the significance of the variables may suggest that the data were not distributed properly for the analysis method used in this study.

The low but significant relationship between dogmatism and good news preference (R=.229) is in line with previously shown strengths of personality variables in other studies. In a study done by Buss (1967) on motivational variables and information seeking in the mass media, the researcher found significant though small correlation between respondents' curiosity and their willingness to attend movies and to use the broadcast media (R=.268 for movies; .266 for radio, and .257 for television). The correlations between curiosity and willingness to use the print media were slightly negative—a slight relationship emerged between newspaper willingness and cognitive needs (R=.165).

Personality influence on media use is one area that could be fruitful in communications research. We have pointed out frequently that correlations, if any, are low. However, very little research has been done using this approach on large randomly selected samples. The fact that such complex influences can be identified and isolated even in small samples suggests that study with larger samples should prove even more useful.

Future media researchers may find it fruitful to examine groupings of personality variables that led to definition of personality types. As this study and similar studies have shown, single personality variables are identifiable but usually occur at significant but low correlation levels when they are identified.

However, there may be effects caused by personality variable clusters that show larger correlational influences. As the field of communications continues to develop, there may emerge information of practical value to media marketers. For example, if the personality clusters which have just been mentioned do exist, the next step would be to see whether such clusters exist within identifiable groups of persons. If such a relationship exists, the media marketer will be able to target his publication not only in the way the message is offered, but also to the specific groups that would be most responsive to what he offers. As this discussion implies, there needs to be much more additional research done relating personality variables to media preferences.

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GALILEO METHODOLOGY IN PLANNING INFORMATION CAMPAIGNS FOR RECRUITING STUDENTS TO THE COLLEGE OF COMMUNICATIONS

Evelyn L. Brannon and M. Mark Miller

Among university administrators, the problem of how to recruit outstanding students is a perpetual concern. As the number of college students dwindles, competition among schools within the university for students is likely to increase. Downtrends in enrollment in specific majors are of special concern to administrators. In schools of journalism, the decreasing enrollment for news-editorial programs is especially troubling. Methods of recruiting students for a university program vary from occasional letters to students with undeclared majors to full-fledged direct mail campaigns. Few, if any, are based on more than hunches as to recruiting methods and appeals.

This study began with an assignment to plan such a campaign for the College of Communications, The University of Tennessee, Knoxville. The study focused on the following questions: How could the College of Communications recruit more and better quality students? What appeals would attract students to communications majors?

Such a research task--known as formative research--combines theory, social science literature, and data gathering and analysis to provide approaches and perspectives on a creative problem in communications. The goal of formative research is to provide recommendations which recognize the uniqueness of the communications situation (Palmer, 1981). Specifically, the purpose of this study was to develop recommendations for message strategies in an

information campaign aimed at recruiting students on the UTK campus with undeclared majors to majors in the College of Communications.

The study uses Galileo (tm) methodology—an intuitively simple but mathematically complex method of collecting and analyzing survey data. For procedural and mathematical detail on the methodology, see The Measurement of Communication Processes: Galileo Theory and Method by Woelfel and Fink (1980). Successful use of Galileo (tm) methods has been reported for a variety of applications including university public relations (Miller, 1984).

The methodology begins with gathering data by means of a pairwise magnitude estimation task. Any two concepts in the domain under study are paired and assigned an arbitrary unit size for the difference between them. Respondents are then asked to estimate the differences between all possible pairs of concepts under consideration as ratios of the arbitrarily designated standard. Typically, questions take the form: "If A and B are x units apart, how far apart are C and D?" Questions like these have been shown to yield reliable data when averaged over modest samples. The advantage of data collected in this way is that the numbers are ratio level measurements unlike conventional surveys that elicit nominal or ordinal data (Miller, 1984).

When data from such questionnaires are averaged across a sample of respondents, the procedure loses individual level information but ascertains the perception of whole publics. These averages are submitted to a metric multidimensional scaling program—the Galileo (tm) computer software. The software contains a variety of algorithms that provide graphic plots of the multidimensional spaces and recommend messages strategies.

The graphic plots that are available through Galileo (tm) software are similar to plots drawn by other multidimensional scaling methods. These plots are graphic maps interpretable intuitively. Galileo (tm) goes further by creating "explicit, mathematically derived prescriptions for effective communications strategies" (Miller, 1984). The method takes the guesswork out of interpretation by indicating the kinds of messages that ought to change attitudes in the desired direction. Even with this specific information, the problems of creating and disseminating messages remain.

Some communications researchers question the data collecting task as unusual and demanding. Other critics suggest that the elaborate mathematical algorithms of the Galileo (tm) software might capitalize on error and lead to incorrect conclusions (Miller, 1986). Therefore, a second aspect of this study focused on a comparison of recommendations developed from a discriminate analysis approach to the message strategies generated by Galileo (tm).

Methods

The first step in planning any information campaign is to meet with the client. When using Galileo methodology, such meetings are used to develop a definition of the problem in a way that is clear in meaning and likely to produce consistent concepts. In this case, the client was the administrator responsible for student recruitment for the UTK College of Communications. In a meeting with the researchers he discussed recrutitment efforts in general, past efforts with successful results, and current efforts. On campus recruiting centered on students who had not yet declared majors.

This discussion, along with observations and informal discussions and contacts, confirmed the target of the message strategy as students with undeclared majors. The research task was to discover how the attitudes and beliefs of these students related to communications and to provide information that would contribute to designing effective message strategies for recruiting.

Researchers using Galileo (tm) methodology establish the domain of discourse for a study by defining the problem in the words of the audience. A variety of qualitative methods may be employed at this stage. In this study, the aim was to recruit communications majors. Therefore, the initial phases of research were conducted with students who had declared communications majors--specifically, with students in basic news writing classes. Two classes were given a written assignment to interview a fellow student on the criteria for selecting a major. The resulting stories were read and analyzed for descriptive words or phrases associated with selecting a major. Two other classes participated in focus group sessions on criteria for selecting a major. Researchers conducting the sessions recorded descriptive words or phrases associated with selecting a major.

Based on the qualitative phrase, researchers selected eight phrases frequently used by students in describing majors and the criteria for selecting majors. These were: "creative opportunities," "challenging work," "interesting work," "flexible work environment," "good salaries," "respected occupation," "helping others," and "social influence." Each phrase (defined for the research as a "concept") was paired with all others and with the concepts "a communication major," "a communications career," and

"myself." The 55 pairs created comprised the Galileo (tm) questionnaire.

Students were asked to estimate how different or "far apart" the words or phrases in each pair were from each other. To help respondents to know what size number to write, they were instructed that "interesting work and helpling others" were 10 units apart. If the two words or phrases were not different at all, they were to write zero.

In addition to the pairs, the questionnaire included questions on choice of major, factors influencing the choice, and academic standing.

The questionnaire was administered to a sample of students attending Introduction to Communications classes. It was expected that such classes would include three groups of students: (1) those with declared majors in communications, (2) those with declared majors in other schools, and (3) those with undeclared majors. One hundred sixty useable questionnaires were collected.

It was hypothesized that the three groups—communications majors, undeclared majors, and declared majors in other schools—would have different sets of attitudes and beliefs concerning communications and that these attitudes and beliefs would vary in some systematic way. If researchers could detect and confirm those differences using both discriminant analysis and Galileo methodology then messages could be generated to change the attitudes and beliefs of the target group—that is, to move those students closer to choosing communications majors.

Attitudes are defined as an "enduring positive or negative feeling about some person, object, or issue" (Petty & Cacioppo,

1981, p. 7). Beliefs refer to information a person has about other people, objects, and issues.

For this study, attitudes were operationally defined as pairwise estimation tasks involving the pairing of attributions about communication ("creative opportunities," "challenging work," "interesting work," "flexible work environment," "good salaries," "respected occupation," "helping others," and "social influence"), "communication major," "communication career," and the concept "myself." Responses indicating small distances between the concepts and "myself," indicate positive attitudes. Beliefs were operationally defined as all other pairings of concepts.

The Discriminant Analysis Approach

Discriminant analysis is a multivariate technique used to differentiate between groups on a set of predictor variables. To determine whether it was possible to discriminate between the attitudes of the three groups—communications majors, undeclared majors, and other majors—a discriminate analysis was run on responses to the eight concepts plus "communication major" and "communication career" when paired with "myself" (the attitude items). The multivariate hypothesis that the groups were equal was rejected at the .01 level. The groups differ on their attitudes toward communications majors and careers.

To determine whether it was possible to discriminate between the three groups on the basis of beliefs concerning communications, a discriminant analysis was run on the belief items—pairs involving beliefs concerning communications majors and careers. Although the univariate statistics showed discrimination on the pairs

involving "creative opportunities," "challenging work," "interesting work," and "flexible work environment," the multivariate hypothesis test was non-significant. Therefore, discriminant analysis was performed on the pairs significant in the univariate tests.

Two parallel discriminant analyses were run: one on the pairs involving the concepts "creative opportunities," "challenging work," "interesting work," and "flexible work environment" paried with "communications major," the second on the pairs involving the concepts and "communicatons career." In both analyses, the multivariate hypotheses that the groups were equal was rejected at the .01 level. Both univariate and multivariate tests support the conclusion that the groups can be discriminated on the basis of their beliefs about communications majors and careers.

Since the null hypothesis was rejected, the multivariate canonical variables can be interpreted. In the discriminant analysis on pairs involving the four concepts and "communications major," canonical variable 1 loads on the concepts "creative opportunities," "challenging work," and "interesting work" and discriminates between students with declared majors in communications and the other two groups. The class means on canonical varialble 1 indicates that communications majors as a group see the concepts "creative opportunities," "challenging work," and "interesting work" as closer to the concepts "communication major" and "communications career" than do the other groups (Table 1).

TABLE 1. CANONICAL STRUCTURE AND CLASS MEANS ON CANONICAL VARIABLES

	Variable 1	Variable 2
Canonical Structure		
creative work	0.853	0.399
challenging work	0.720	-0.097
interesting work	0.826	0.196
flexible work environment	0.340	0.806
Class Means on Canonical Variables		
Communications majors (n=99)	-0.256	-0.037
Other majors (n=36)	0.557	-0.296
Undeclared majors (n=25)	0.329	0.553

Canonical variable 2 loads on the concept "flexible work environment" and discriminates between students with undeclared majors and the other two groups. The class means on canonical variable 2 indicate that the concept "flexible work environment" is more important to the group with undeclared majors and that they do not associate that concept with communications careers and majors (Table 1).

Recommendations Based on Discriminant Analysis

Discriminant analysis shows that the three groups differ in their attitudes toward communications majors and careers. Further, it indicated that the groups' beliefs about communications careers and majors differ in systematic ways. Based on the discriminant analysis approach, researchers recommend that: (1) the college assert that communications careers offer "creative opportunities," "challenging work," and "interesting work" in messages aimed at recruiting all students to communications majors, (2) the college stress the concept "flexible work environment" in messages aimed at

recrutiting students with undeclared majors. With effective messages, the recruited students will become more like communications majors in their belief structure and more likely to declare communications majors.

The Galileo (tm) Approach

In this case, the means for each group on all 55 pairs were used as input data for the Galileo (tm) computer software. Galileo (tm) output includes coordinates to produce multidimensional maps that provide a visualizations of each group's perceptions regarding the concepts under study. Further, Galileo (tm) suggests message strategies based on the concepts used in the questionnaire--both single, one time messages and message combinations. The researcher can interpret the printout by looking for the one most plausible message or by looking for the terms that most frequently occur in suggested messages.

Interpreting Galileo (tm) Maps

Each map has a right-left dimension and an up-down dimension. These dimensions account for about two-thirds of the information available in the data with the remaining information spread across 9 other dimensions.

For this study, the three maps generated--one for each of the three groups--showed very different dimensions. Thus, the maps were rotated to a least squares fit among concepts to allow interpretation on common axies.

Looking at the map for the group of communications majors (Figure 1), the spread of the concepts is small--that is, all the

concepts are clustered fairly close to the center with the concept "myself" almost at the center of the plot. The concepts "communications career" and "communications major" are also close to the center and very close to the concept "myself."

The map for the group of students with undeclared majors (Figure 2) shows a moderate spread of the concepts. The concept "myself" is fairly close to the center of the plot with the concepts "communication career" and "communications major" more distant than in the previous plot for communications major.

In the map for the group of students with declared majors in other schools (Figure 3), the spread is considerably larger than for the other groups and the distance between the concept "myself" and the concepts "communications major" and "communications career" is very great.

Visual inspection of the maps leads to an intuitive interpretation parallel to expectations. For the communications majors (from whom the concepts were developed), the concepts are salient and close to their self concept and the perceptions of their majors and career choice. The opposite is true of the group composed of students with majors declared in other schools. For this group, the concepts have little salience and the concepts of a communications major or career are widely separated from self concept. The group of students with undeclared majors falls in the middle. For them the concepts are salient but self concept is farther away from the concepts of communications majors and careers.

Such maps are only a snapshot of the data, and intuitive interpretations give way to specific recommendations for message

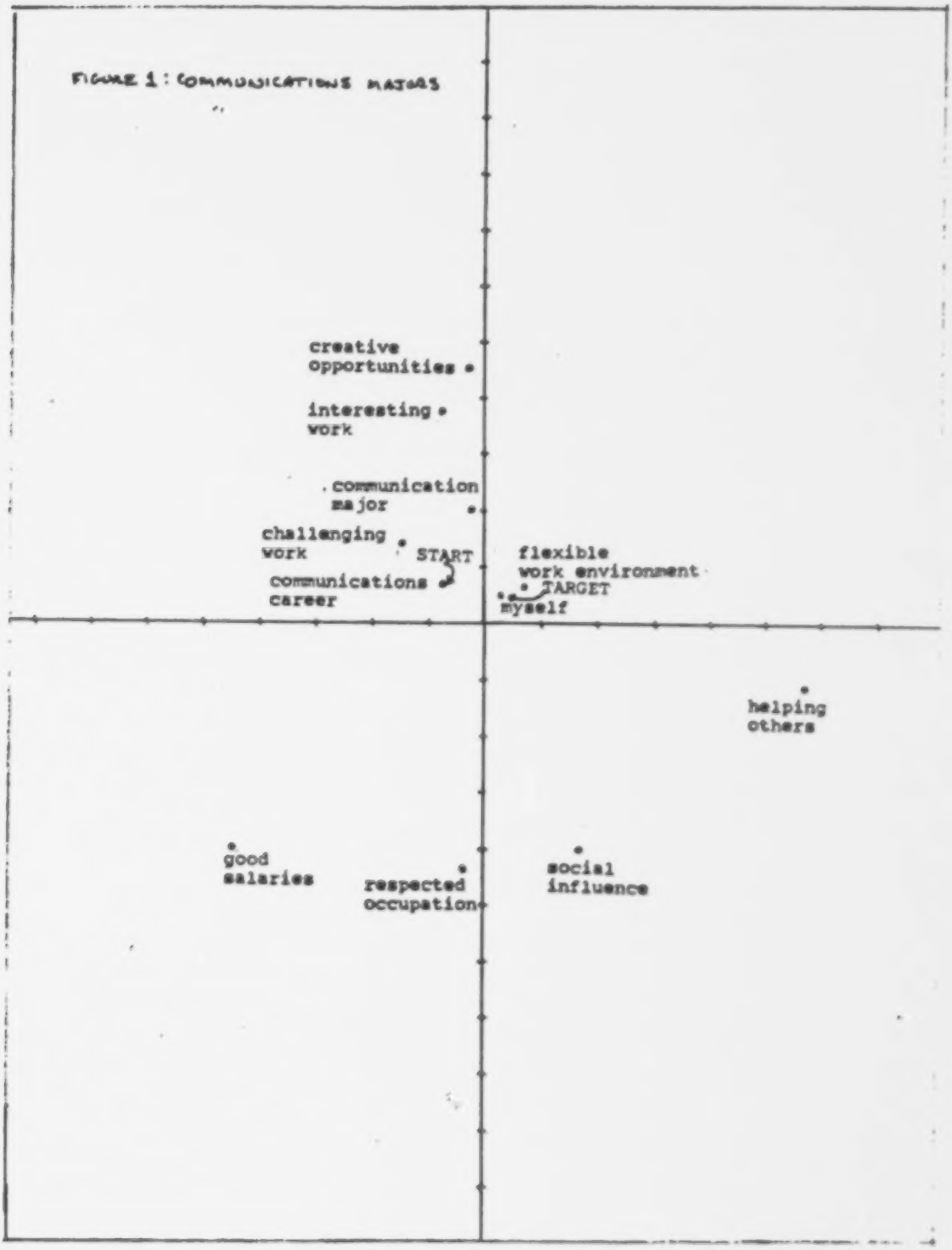


FIGURE 1: COMMUNICATIONS MAJORS
creative opportunities
interesting work
communication major
challenging work
START
communications career
flexible work environment
TARGET
myself
helping others
good salaries
respected occupation
social influence

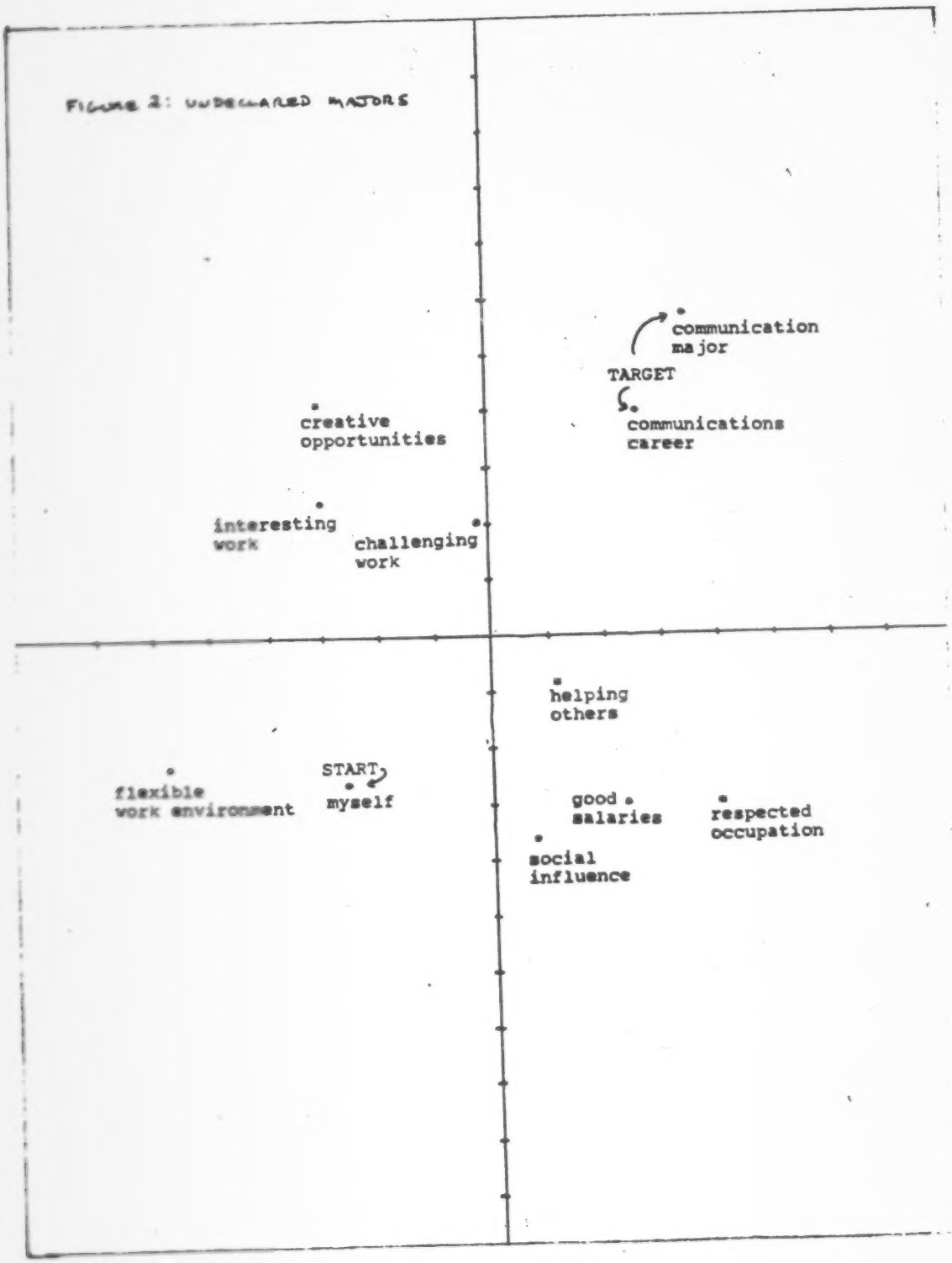
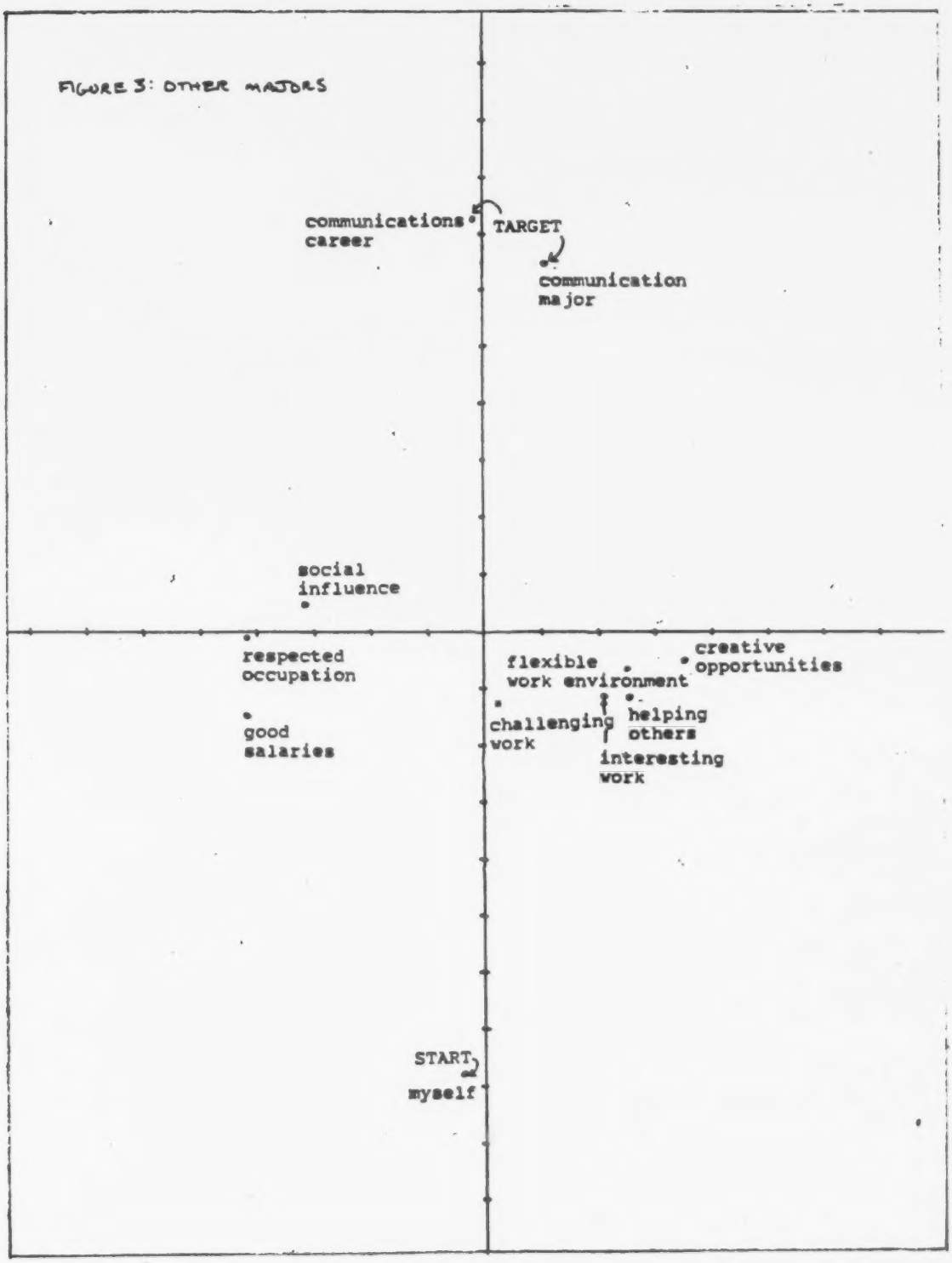


FIGURE 2: UNDECLARED MAJORS
communication major
TARGET
communications career
creative opportunities
interesting work
challenging work
helping others
START
myself
flexible work environment
good salaries
respected occupation
social influence

FIGURE 3: OTHER MAJORS



strategies in Galileo's message generation ouput. The maps show only 2 dimensions utilized by the message generator.

The Message Generator

Message selection can be explained by referring to the maps. For example, the map for the group "undeclared majors" shows the position of the concept "myself." This position can be called "Target." "Start" refers to the location of the strongly correlated concepts "communication major" and "communications career." A message consists of some combination of the remaining concepts that will move "Start" toward "Target." With eleven concepts plus "Start" and "Target," there are close to one thousand possible messages. The Galileo (tm) software will "try" all of these combinations, evaluate them, and list all effective combinations. Galileo (tm) ouput also provides an estimate of how effective each concept combination will be in moving "Start" closer to "Target." This estimate in the form of a percentage that represents how much closer the two will be after an effective campaign.

For this study, message strategies were generated by the software for the group "undeclared majors" but no plausible messages were generated for the other two groups. This outcome is easy to understand. There are no effective messages for the group "communications majors" because the distance between "myself" and "communication major" and "communications career" is so close that no message strategy can move them substantially closer. There are also no effective messages for the group "other majors" because for that group, the concepts that would make up the message have little salience. Thus, Galileo (tm) generated output for the target group—

undeclared majors—because for that group the concepts are salient and effective messages can be devised to move the concepts "myself" and "communications major" and "communications career" closer.

Recommendations Based on Galileo (tm)

For this study, all possible combinations for the four concepts suggested by the discriminant analyses were checked in the Galileo (tm) output. The four concepts—creative work, challenging work, interesting work, and flexible work environment—were plausible as single, one-time messages and the combination of the four was also effective (moving "Start" and "Target" 64 percent closer) according to Galileo (tm) methodology.

Galileo (tm) generated plausible messages that were combinations of other concepts not highlighted by the discriminant analysis approach. According to Galileo (tm) methodology, the best single message is a combination of the concepts "challenging work," "good salaries," and "social influence" which is predicted to move "Start" and "Target" 88 percent closer. Other message combinations with better than 80 percent effectiveness were: (1) "good salary" and "respect of others"; and (2) "creative work," "good salary," and "helping others." However, it appears plausible to use the concepts congruent in both the discriminant analysis and Galileo (tm) output for initial message strategy.

Conclusion

An information campaign is likely to be an ongoing campaign with message strategy varying through the course of the campaign. Researchers can aid clients in developing message strategy by

suggesting concepts with symbolic meaning for the target audience and by suggesting specific single and combination messages.

Both the discriminant analysis approach and the Galileo (tm) approach provide suggestions for message strategy in an information campaign. Additionally, both approaches indicate agreement on which symbolic concepts are plausible with the group "undeclared majors." A researcher could with confidence suggest a message strategy based on the concepts "creative opportunities," "challenging work," "interesting work," and "flexible work environment" with special emphasis on the latter in recruiting efforts with students who have not yet declared majors. Galileo (tm) output also suggests message combinations utilizing other concepts in the set of eight that would be plausible in the course of the campaign.

Additionally, the present study provides support for the theoretical and practical application of Galileo (tm) methodology by demonstrating that parallel message strategies can be derived from both discriminant analysis and Galileo (tm). However, with Galileo, there is an added benefit. The maps provide an intuitively interpretable snapshot of the concepts in relation to the groups, and the message generator provides other effective messages that could be utilized in an ongoing campaign.

Discussion

This research leaves unanswered the question of how the various individuals and groups interpret the meaning of the concepts used in this study. What does a student with an undeclared major mean by the phrase "flexible work environment"? Why does the concept have so much importance for these students? Do the other two groups

interpret the concept in the same way? Perhaps flexibility has a special meaning to students who have chosen to remain "flexible" on the question of what major to declare. Additional research is needed to clarify the colors and shadings associated with concepts in this study.

Formative research is only the first step in campaign planning and execution. Research at every stage of the campaign allows for careful monitoring and for adjustments in strategy. Finally, evaluative research carried out after the campaign determines the overall effectiveness of the messages and campaign strategy.

The next step would be to turn over the recommendations to a creative team for development and execution of the campaign. For example, letters could be sent to two subsamples of students with undeclared majors—one receiving a message deemed to be effective, the other a non-effective message. By suggesting that recipients call the dean's office for an appointment to discuss communications majors and career opportunities, the responses from each group could be compared to ascertain the effectiveness of the message strategy.

It is clear that research methods like discriminant analysis and Galileo (tm) are useful approaches to problems like that of student recruitment. Such methods used in formative research generate specific strategies that can be translated into information campaigns aimed at changing the attitudes and beliefs of the target audience. Although the problems of creating and disseminating the message remain, such research lays the foundation for effective campaigns.

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WHAT CAN BE LEARNED FROM A SECRET NEWSLETTER ABOUT A SECRET ARMY DETACHMENT IN A SECRET CITY IN TENNESSEE

June N. Adamson

While many persons in East Tennessee and others across the country knew that there was a special project going on in a certain fenced-in area along the Clinch River in the early 1940s, they did not realize its extent. They knew that it was Army-connected and some may even have recognized the Army Engineers insignia when an officer or an enlisted man went through Knoxville to travel to another Manhattan District site. And there were a few officers and enlisted men from "the Clinton Engineer Works (CEW) Project" who lived in Knoxville when no other quarters were available to them.

Of course, there was nothing unusual about seeing young men in uniforms anywhere in the country then. Trains were full of them being transported to embarcation points both on the West and East Coasts. Few people gave it a passing thought, certainly not enough to consider that there was a special detachment assigned to a secret project that was actually a new, fast growing, if secret, city that was Oak Ridge. Certainly no one, not even the soldiers assigned there, knew until World War II ended that the Special Engineer Detachment (SED) brought 1,257 soldiers, all enlisted men, to Oak Ridge during the first two years of the city's existence. The SED was, by most standards, a plush unit. An anecdote from the detachment's mimeographed newsletter illustrates the point.

> We rode from Knoxville this week with some new men for the detachment who had just finished basic training. We told them all the facts [about the Oak Ridge assignment] with no embellishments, but would they believe us? Hell no! The thing they found hardest to believe was the inner spring mattresses. . . .

A special survey shows that they slept very well the first night. [1]

One GI recalled his first night in Oak Ridge. "We arrived in the pouring rain, so we were told to sleep late before orientation the next day. Imagine my surprise to be awakened by a group of Negro maids coming into the barracks to make our beds. I couldn't believe this was the Army." [2] He and many like him had been plucked from the ranks of an Infantry company.

There was no kitchen police (KP), nor were there mess halls for these men. Most of the GIs were glad to be in Oak Ridge. Considering such alternatives as the Battle of the Bulge that was building in Europe the fall and winter of 1944, where some of them knew they were headed, they didn't resent too much that they were working for Army pay, $50 a month for a private, plus a daily food allowance of $2.25 for those who lived in the barracks and ate in the cafeterias scattered around town. Never mind that the civilians they ate alongside were being paid as much as $40 a month, a fortune in those post-Depression years. Many of the SED men stayed on in Oak Ridge after the war. Some married local girls. Some brought wives and families with them and were allowed to move out of the barracks to be with their families—if they could find a room in someone's house or an apartment off the CEW area, as Oak Ridge was mostly called in these days of secrecy, or if their wives could get a job that qualified them for living quarters. Most women couldn't in those days.

Men were assigned from all parts of the country to work at Oak Ridge and other Manhattan District installations when it was realized that not enough civilians with science and engineering

training could be found to do the job that needed to be done—to work on this secret project that would help win World War II. Joe Nisbett, a warrant officer, was the first adjutant for the SED, and it was his job to oversee the handpicking of young men in the Army who had degrees in these fields, as well as those who had some training toward such degrees. [3]

It was on May 22, 1943, that the Commanding General of the Army Service Forces authorized the establishment of the SED. The first district roster consisted of 334 enlisted men, and it was thought this would be enough. However, by the fall of 1943, with technical men still scarce, the district began a program of recruiting among colleges and universities to line up draftable men who might be assigned to the secret SED. This recruiting extended to the Army Specialized Training Program under which many young men were receiving their first college training.

The first enlisted men assigned to the secret detachment in Oak Ridge arrived July 19, 1943. The first commanding officer was the late Captain William A. Fogg. In March 1944, he was succeeded by Captain William A. Barger, who held the post until the war ended and the SED disbanded.

The first men who came to Oak Ridge lived in dormitories with civilians, but as the detachment grew, the men were moved into eight barracks located approximately where downtown is now. This was in February 1944. As the detachment grew and grew, hutments were added near the barracks. The hutments were one-room, of primitive construction, with each housing four men. As in most Army camps, there were separate bathhouses. However, by November 1945, after the war was over and detachment numbers fell, men were returned to

dormitories, this time taking over complete buildings remodeled for Army use, with one dormitory serving as the SED Headquarters. [4]

The Women's Army Corps (WACs) served in Oak Ridge, too, but just how many is a good question. One article in Yank, the magazine for GIs by GIs, said "a handful." [5] One SED News said several hundred. One writer, reporting on an award the SED WACs received, couldn't resist a sexist and editorial remark, "We think they deserved it. Anytime 300 women can keep their mouths shut for such a long time, they deserve something." Certainly there were never "hundreds," but there were more than "several." Somewhere in between is more likely to be true, according to Clare Dykes Zulliger, a former WAC, who later worked as a civilian clerk at SED Headquarters along with several WACs. Other WACs were stationed at "The Castle" where the Corps of Engineers' officers oversaw the work of the town and the plants. This same building later became the headquarters for the Atomic Energy Commission and was replaced on the same site by a new, modern building that now serves as headquarters for the Department of Energy (DOE). So far as can be learned, there were no WACs assigned to Oak Ridge to do scientific work, but in those years of secrecy it is possible if not probable.

The first Army women who came to Oak Ridge were members of the Women's Army Auxiliary Corps (WAACs), which was later changed to the Women's Army Corps. Since the change meant a formal reenlistment to join the regular WACs, some women dropped out at that time. For this and other reasons, there was some turnover among WACs in Oak Ridge. Clare Zulliger was one who came as a WAC but chose not to reenlist. She came back to Oak Ridge for a visit, however, and within a week was at work as a civilian. She met her husband-to-be,

Al Zulliger, the day the bomb was dropped on Hiroshima. Because there was no longer so much need for the work he had been assigned to do in Oak Ridge, he was sent to Greenland. Discharged within months, he returned to Ohio State University to finish the remaining two quarters needed to complete a degree in mechanical engineering; then returned to Oak Ridge for a civilian job. He and Clare were married at the home of Father Francis McRedmond, the first priest at St. Mary's Catholic Church. Between the time he returned to Oak Ridge and their wedding in September 1949, he lived in a D-house on Venus Road with five fellows, three of whom were former SEDers. In the meantime, Clare lived in another D-house on Pasadena Road, shared with five other young women—one way single young people could qualify for what were then Oak Ridge's best houses. Because Clare worked at SED Headquarters during the war years, at least one nearly complete file of SED News has been preserved for 40 years. [6]

Before V-J Day (Victory over Japan), the name of the Army newsletter, SED News, was a misnomer since it carried no news or information that was significant. Scores of winning bridge teams, bowling and other sports information filled its columns, as well as what was on at the movies. Columns were filled with jokes, most of them sexist, some quite "raunchy" for the time. Headlines, such as "Girl Found in Barracks," dealt with the finding of Mabel, the skunk, who had crawled in. [7]

Even though the first enlisted men arrived in Oak Ridge in 1943, the SED News was not started until March 1945. At first it was only one page, mimeographed on both sides, and published once a week. Later it was published as many as three times a week and grew

in size. There was no formal masthead at first; only a credit line: "This paper is edited and published weekly by Roy Botzig and Dick Harrison. All notes and announcements must be turned in before 2000 of the Tuesday before it is to appear." [8]

The SED News was not circulated in any formal way but kept in stacks at SED Headquarters where GIs could pick it up each week. While there was no formal label of "secret," GIs very well understood that it was not to contain anything about the work they were doing, nor was it to be taken from the area. However, since Richard Gehman, assistant editor of the Army-sponsored community newspaper, the Oak Ridge Journal, was a member of the detachment, he had access to it and occasionally made reference to it in his column "The Oak Leaf." Obviously, the officers of the detachment knew of its existence but none complained. "After all, it hardly cost anything to print—just a little paper and use of the mimeograph machine in the office," said Clare Zulliger, noting that editors and reporters, all volunteer, worked on it in their spare time from assigned jobs. [9]

One July 1945 issue demonstrated how careful editors were about anything that might be called "real news." The lead story was about an Army Air Force Show, an exhibit of Japanese equipment that had been "Shot from the Skies," as the title indicated. Preceding the article was a parenthetical disclaimer: "(All the other papers carried this story, why can't we)?." The exhibit was free, but the underlying motive was the sale of war bonds, and it was noted that entertainment would be provided with combat films—"voluntary for a change"--as well as music and drama by Oak Ridge talent. [10]

The only illustration carried in the early newsletters were

drawings, most of bosomy, long-legged women in very short skirts.

From time to time there was mention of "The Commandos," a unit that one former SEDer described as "a group of uncoordinated scientists and engineers who practiced for a short time in case such emergencies as riots occurred." None did, and the GE added that it was mainly close-order drill that was practiced, which wouldn't have helped anyway, "but that was the Army way." [11]

It seems clear from the SED News that the soldiers assigned to Carbide, then the K-25 (later Oak Ridge Gaseous Diffusion Plant) only, received the benefit of better public relations than those assigned to the other plants, Y-12 (Tennessee Eastman) and X-10 (Du Pont during the war years). K-25 SEDers were feted several times a year at a special buffet supper, with a menu worthy of talking about in times of food shortages in a city that wasn't even on the map. Reports about such occasions never failed to mention that the other two plant operators should do likewise. Perhaps K-25 managers did more because they had so many more soldiers assigned there and were more dependent upon them. [12]

The SED had a swimming team, too, since from the early days Oak Ridge had a large pool, thanks to the natural spring in the Grove Center area, and everyone, including GIs, was encouraged to use it in whatever time they had left from a six-day workweek during the summer months.

During the first six months of its existence, the only "news" in the SED News had to do with "in-house" policies affecting GIs. An example was the story about a new policy in regards to means served to soldiers who were hospitalized in the Army-operated Oak Ridge Hospital. "Starting July 17 each hospitalized soldier will be

billed seventy-five cents a day for the meals he eats. Heretofore, a GI patient's entire subsistence ($2.25 per day) was withheld for the time he was in the hospital." [13]

However, following V-J Day, more information about the SED began to be printed, much of which individual GIs did not know about their unit. One article carried results of a survey conducted by Warrant Office Nisbett. It was he who noted that the men came from the District of Columbia and 47 of the 48 states, "New Mexico being the lone survivor." Perhaps it is reasonable to assume that anyone qualified for such scientific and engineering work from that state had been sent to Los Alamos, although that is not usually the Army way. The Oak Ridge GIs knew that some men from the detachment were sent there and knew that Site Y was another installation connected with the Manhattan District, although most were not able to fit all the pieces together at the two installations. They knew enough to do their specific job, whether or not it was working directly with uranium.

The top two states represented in SED by August 1945 were New York with 228 and Pennsylvania with 110. The next eight states represented in SED were Ohio with 107; New Jersey, 83; Illinois, 80; Michigan, 58; California, 54; Massachusetts, 53; Indiana, 45; and Wisconsin, 31.

Following these came Tennessee with 30; Texas and Iowa with 27 each; Connecticut with 26; Missouri and Minnesota with 23 each; Virginia with 22; Maryland, 19; Maine, 15; Kentucky, 14; Georgia and Oklahoma tying with 12; North Carolina and West Virginia with 11 each.

Then followed Alabama with 10; Colorado with 9; Montana and

Rhode Island with 8; Louisiana with 7; Vermont, 6; Nebraska, South Dakota, South Carolina, Delaware, Arkansas, and Washington state with 5 each; Mississippi, North Dakota, Kansas, Washington, D.C., New Hampshire, and Florida with 4 each; Utah with 3; Oregon, Arizona, and Idaho with 2 each and Wyoming and Nevada bringing up the rear with a single man apiece. Hawaii and Alaska were not states yet and whether they sent representatives is not known.

According to one story in an early Oak Ridge Journal, there were six Ph.D.s living side by side in the SED, but the SED News disagreed. In October 1945 it claimed ". . . there is only one. George Steinberg must have been beside himself that night." The News source was "Form Twenties," and it is entirely possible that the Journal had been correct and that five of the Ph.D.s had been sent other places, for some were brought to Oak Ridge very briefly and then sent to Los Alamos and elsewhere. In any case, the Journal story got its editor, Frances Smith Gates, called on the security carpet. Yank magazine, after the secret of the bomb was out, reported that there were nine Ph.D.s in the SED at one time. [14]

However, Ph.D.s or not, when it came to degrees and intelligence, the SED did all right. There were 607 bachelor's degrees, and 45 men held master's degrees. Many did go on for advanced degrees upon their discharge, most, of course, under the GI Bill. The News reported that 75 percent of the detachment expressed this intention in a survey. SED men were courted by such universities as Massachusetts Institute of Technology (MIT), and one announcement in the SED News stated that real houses had been built near that campus for GIs and that only one had been occupied as of late 1945.

As for the intelligence of the SED, there was no doubt. Both the SED News and the SED Yearbook that was put together by the fall of 1945 noted that the men of the detachment represented 300 institutions of higher learning and the Army General Classification Test (AGCT) score for the detachment was 133, "undoubtedly one of the highest scores for any single unit in the Army." GIs throughout Oak Ridge chortled with delight when it was announced that the score was higher than the median for the officers stationed there. There was also some competitiveness among the GIs reflected in a SED News report:

> The big yellow cards show that the chemical engineers (including petroleum engineers, ceramic engineers and industrial chemists) not only lead the list as to the number of men with 300, but have the highest AGCT average, 135.02. The physicists, with only 29 men, place a close second with an average of 134.93. Holding up third with 25 representatives are the math fiends, having an average score of 134.72. Liberal Arts grads with 20 men, and Civils (includes Structural) with 30, are fourth and fifth respectively with 134.45 and 134.07.
>
> Mechanical engineers, second in the number of men with 253, are sixth in brain power, having a 133.79 median. the 20 Aeronauticals in the detachment garnered an average of 133.79 for seventh place, while the Biz-Ad men held down eighth place with a very close 133.26. The chemists (includes biologists, bacteriologists and pharmacists) have the third largest representation with 247 men, but rank a poor ninth with an AGCT score of 133.22. The lowest two averages tabulated belong to the Mining and Metallurgy and Electrical Engineering men with 22 and 105 men respectively. The M & Ms got a 132.95 and the double Es a 131.88.

The survey also revealed that the SED had 12 architects, 4 zoologists, 3 lawyers, 3 Med students, and 2 Ag men. These groups were considered too small to furnish an accurate average. The 18 men who had not attended school further than high school had an average of 109.61. Remember, though, the median score for the

entire detachment was 133.42, meaning that half were above and half below that figure.

One interesting notation: Two colleges outside the United States were represented: Roberts Engineering Institute of Istanbul, Turkey, and the University of Zurich, Switzerland, each with one member of the SED in Oak Ridge. [15]

Even though GI uniforms were seen all around Oak Ridge, not many residents realized just how large the SED was. At work in the plants, the men wore the protective clothing, coveralls and the like, worn by all plant workers and were not necessarily recognized as being in service, even by each other. The majority were working at K-25, as has been noted, probably the next largest group at Y-12, Fercleve, United States Engineering Detachment (USED) at "The Castle," with a smaller number assigned to Clinton Laboratory, now Oak Ridge National Laboratory. An illustration of this point is found in a September 1945 "Grapevine" column of the SED News:

> We heard an interesting story from Clinton Lab the other day. As you know, the lab was taken over by Monsanto (from Du Pont) the first day of July. Last week, the new big boss got up before the assembled employees and made a speech in the "big happy family" vein. At the conclusion of the speech, one of our detachment boys raised his hand and asked the policy towards GIs. The big boy replied that the company was very thankful to all the boys in service and that they would all get their jobs back. Our boy said no, he meant the GIs working for the company now. The big boy got a blank look on his face, turned to the man next to him, and said, "Do we have soldiers working for us?" [16]

In addition to the "Grapevine" column, the SED News began to carry a column "Hatched and Matched" to tell of births and marriages, although not in that order. Many of the marriages took place at Oak Ridge's Chapel-on-the-Hill, the Army-built chapel

originally intended to serve all demoninations in an ecumenical way, but a great number took place out of town as GIs returned to hometowns on furloughs for that purpose. News of such weddings was not written in the usual social style, as a column in another October issue indicated: "T/5 Johnny Farquharson and Lois Ann Amos performed the deed on Oct. 7 at Chatham, Va. T/5 Ray Eby got hitched to Rosemary Booth on Oct. 6 here in Oak Ridge." [17]

During the weeks following the news of the dropping of the atomic bombs on Japan and of Oak Ridge's part in it, stories among GIs were many and varied, some of them no doubt apocryphal. For example, the one from a girl back home who didn't write much: "It has been a long time since I received your letter, and when I picked up the paper and read about Oak Ridge and the atomic bomb, I just had to sit down and write."

One GI claimed to have heard from a friend in the Philippines: "When in hell are you coming over here to relieve us? There you are diddling your stirring rods and shaking your test tubes while I've been working my fingers to the bone over a hot artillery piece. . .!" And then there was the letter from a gunner on a Naval cruiser: "How big is the bomb? How many tons of powder do you need to set it off?"

One SED man probably was not alone when he said his parents wrote: "Is it dangerous? Son, take good care of yourself--don't take any chances." And another said his former physics professor wrote to ask: "Why the hell didn't you tell me?" [18]

By the time the September 1, 1945, issue was published, it carried the masthead "By GIs for GIs," along with the names of the editors and several volunteer reporters; and it was announced that

the new patches had come and that the WACs had been the first to sew them on. Because the first supply was limited and because General Leslie F. Groves ruled that every man should have the patch to wear over the Labor Day holiday, only one patch was issued to each man at this time. The remaining were issued later for all uniforms as they arrived. The patch for the SED was an egg-shaped ground of white on blue with a dark blue star in the center of a red circle with a lightning-like white flash extruding from the bottom to split the small (atom-like?) circle at the bottom. It was designed by Captain Francis O'Sullivan. The SED men wore it proudly, and those in charge of printing the SED News obviously considered its arrival more important than that of General Groves, upon whose form few, if any, enlisted men's eyes had gazed before. A copy of his apparently short V-J Day speech was relegated to page 3 of the News:

> I don't know how many of you have heard me talk before. If you have you have heard me say that the work of the Manhattan Engineer District was very important. I did not tell you what it was. Some of you could guess. I do not think many of you could guess the effect it could take. I told you that it was my ambition that when the job was accomplished and the war was over, you could hold up your head by telling them I was at the Clinton Engineer Works, and you know that that means. That ambition has suddenly been fulfilled for all of us. As the President has said in his release, the United States took a calculated risk and won that risk. I do not think anyone realizes how great that risk was and we could have been thrown down at any time by the failure of one or two. We could not build this plant so that it was foolproof. We could work for 100 years and we still could not have had a foolproof plant or bomb when we were through. This job has been a success because everyone did his best to make the thing good. We could not have done this job without you. Anyone who thinks we could is just crazy, there is no use even discussing it. The Secretary of War knows it. When everyone else in the Army was being told to reduce, we were asking for more. They did not know what we were doing but I had the support and approval of anything that I thought was necessary from the Secretary of

> War and the Chief of Staff. We accomplished what we set out to do, which was to bring the war to the end. The Japs were licked. They were licked at the Battle of Midway, but they went on fighting, and no telling how much longer they would have fought if it had not been for Hiroshima and Nagasaki. . . . [19]

There was more of the same and it seems obvious by the language and by the analogies used that Groves was no intellectual and that he thought he was addressing an "ordinary group" of enlisted men.

By late 1945, the SED News carried a serious column called "Berlin Calling" to explain what was going on in occupied Germany; how hard it would be for the Germans to feed themselves, and quoting Eisenhower's words that the Americans were there to help them reconstruct, not to do the work for them. How political education would be approached was outlined with a question "What will the Herrenvolk accept as a fair form of government?" A map showing the break up of German industry was included.

But a little later, the most serious thing the GIs seemed to be thinking of was a holiday party--plans for a second Christmas in Oak Ridge for many, still with scarcities and shortages. However, for most, it had been a happy time, a time when the men felt they were contributing to the war effort using the skills and knowledge they had gained before enlisting or being drafted into the Army, and for which most were far more suited than shooting guns. Married men had a chance to be with their wives and even those with children were able to make arrangements that, while difficult, were better than being separated.

Late in 1945, GIs were even allowed to rent shack-like Victory Cottages, painted drab gray and arranged duplex-fashion and close together in a neighborhood located approximately where lower

Illinois Avenue is now. The units did have small indoor bathrooms and many couples, with and without a child, moved into them. There was no air conditioning anywhere in Oak Ridge then, but the Victory Cottages needed it more than most since the cook stoves were coal-fired and gave out a lot of heat even when the thermometer was pushing 100 outside. However, there was a lot of sitting outside on summer nights "neighboring" and, despite complaints, the experience was survived. Some GIs, however, chose to stay where they were, in rented rooms in more comfortable Oak Ridge housing or off the area. [20]

By this time the News was using a new format, the printing by the multilith process on about 5 x 9-inch sheets and up to as many as 8 pages. However, this innovation lasted only a few issues, and it was explained that because of the vagaries of the multilith machine, the final issues of the SED News early in 1946 were back on 9 x 11-inch mimeographed sheets. While it lasted the multilith process did allow for a few pictures, mostly mug-shots of favorite pin-up girls.

The men of the SED took part in the life of the community and contributed to it. In addition to participating in sports, some played in the Oak Ridge Symphony Orchestra, some acted in plays, and many participated in the various special interest clubs that sprang up like weeks in this new secret city. SED men also presented two plays of their own, both in melodrama style. The first, "Gold in the Hills," was presented in January 1945 on two nights. Admission was something like 20 cents, and the auditorium that was located in the first Oak Ridge High School, then located on Kentucky Avenue, was filled both nights. A second successful melodrama, "The

Drunkard," was presented by the men and WACs on November 2 and 3, 1945. Tryouts and reminders of both were carried in the SED News, but there were no reviews.

For 20 cents, men of the detachment could dance at tennis court dances they sponsored. Music was by Benny Goodman, Harry James, and Tommy Dorsey, "canned, of course," and courtesy of Bill Pollock's sound system. The Recreation and Welfare Department sponsored similar dances, both on the tennis courts and in the several recreation halls around town. These were free and open to GIs and civilians alike. It was at such dances that many Oak Ridge couples first met. Rumors about early discharge from service flew almost from the day the war ended. On September 29, 1945, Secretary of War Robert P. Patterson and Major General Leslie R. Groves were interviewed at a press conference at the Administration Building, then known as "The Castle." GIs wanted to know about the future of the SED. It was reported in the SED News that Secretary Patterson replied that the detachment would continue as usual, as "long as the contractors feel that they need the men." To this General Groves added that the men of the SED would be discharged on the same basis as anyone else in the Army. Shortly after, GIs at the three plants were offered early discharge if they would stay on in the same jobs they were doing as civilians. Some chose this route but others chose to stick it out until they had enough "points"--or two years of service so they could be free of service ties and have a greater opportunity for job choice. For instance, a metallurgical engineer assigned to doing chemical analysis as a member of the SED found it worth spending a few more months in the Army to be able to be hired into the kind of materials work he was trained for. However, in

September, Groves added that the whole future of the Manhattan Project depended upon the decision of Congress. "If Congress decided to discontinue the project, the SED will probably be shipped out almost at once." So there was continued uncertainty among the men, and it was reflected in what was reported in the SED News. [21]

Late in 1945 the "Grapevine" column reported "This place is getting more like a college every day. We have a musical group, a newsletter, a theater group, and now a yearbook. All we need to make the setup complete is a few fraternities. And how about a reunion in 1958?" [Actually, the first reunion waited until August 1985—40 years later—at the Steiner-Bell Health Resort in Gatlinburg.]

The first announcement that the SED men would have an official yearbook—if they paid for it—was made at the end of October. It was planned to have about 130 pages, with sections on administration, activities, sports, and individual pictures of each man. The cost of the picture was included in the price of $3 for the book. [Remember, things were at least ten times less costly then than in the 1980s.] But, at the time, the price was printed rather apologetically, noting that the cover would be of "Marvelleather," a heavy paper with a marbled look, to save money. The SED patch in full color was emblazoned on four blue stripes running the length of the book. The letters SED and the year 1945 were embossed on the cover in gold, presumably the year chosen to indicate the war's end. "Because of the small number of men assigned to Fercleave and Kellex, these men will be included in the Carbide section," the News reported. The other noncontractor men were listed in the USED

section. The book was printed by John S. Swift Company of Cincinnati, Ohio.

The book was purchased strictly on a cash-in-advance basis and only the number of books ordered were printed. A few SED wives later complained that even $3 was a lot of money to them and they couldn't afford it. Some men came into SED too late to sign up for their pictures or the book. Anyone who signed up but shipped out before publication received his copy by mail. [22]

In addition to the distinguished patch for Manhattan District officers and SED enlisted men alike, a special merit award was presented to the SED men on August 15, 1945. A special retreat parade was held to award the Meritorious Service Plaque and a gold star in lieu of a second plaque to the entire detachment. The award was given "for superior performance of duty or outstanding devotion to duty in the performance of exceptionally difficult tasks, achievement and maintenance of a high standrd of discipline based on such things as enthusiastic execution of orders as well as by an unusually low rate of the things considered punishable by court-martial or under the Articles of War." In addition to the detachment plaque, all SED members were given a special insignia of green and stitched onto a two-inch square of olive drab cloth to match the uniforms. SED men were informed they should wear this patch on the right sleeve, with the bottom of the patch four inches above the end of the sleeve. Most GIs also wore this patch proudly, but all of them promptly labeled it "the Golden Toilet Seat." [23] After all, this was the Army, and these were GIs, however special.

Despite all this praise, SED men were not above "cutting up" and of being reminded of Army rules. At one point, notice was

served that the pasting of beer labels on the Detachment Exchange (DX instead of PX) ceiling would result in "the loss of stripes." Another time the men were warned that they should not go around without their hats. "The MPs are on your trail," the notice read, adding, "Extra duty on Saturday awaits." And Captain Barger wanted to know "why men with AGCT ratings averaging 133 go around punching holes in the DX walls?" These and other warnings were duly published in the SED News; however, there were only a few such reminders that this was the Army. In fact, Army "interference" with the SED was kept at a minimum—the emphasis being on the scientific and engineering work the GIs were doing. This was undoubtedly why the printing of the "secret" newsletter was "overlooked" so long as it didn't interfere with assigned work. One major came through early in 1945 and tried to "GI things up." It meant that the SED men had to spend time spit-and-polishing in their quarters rather than being on the job in the plants. The major was suddenly sent to Panama.

Although beer was the major drink enjoyed by GIs, Oak Ridge being in a dry county, liquor was often smuggled in from other places and from short trips to the well-known Oakdale liquor store. One time a group of GIs had their liquor confiscated, and illegal or not, they complained. It was not "officially" returned to them but word came that if they could identify the property it would be restored, and it was. [24]

By January 1946 the lead story in the SED News was "Cadre Leaves!" explaining that the top-ranking enlisted men had joined the mass exodus that was beginning to take place as eligible men left for the separation center. "By February 15, the ranks of the Cadre

will have experienced a complete turnover," a News article reported. Among those scheduled to leave was Master Sergeant Campbell King, and readers were informed that he would return, along with many others, to work as civilians at the K-25 plant. [25]

One of the final issues of the SED News on March 18, 1946, noted that "The Bikini Boys are off—almost," referring to the group of enlisted men who went to Bikini Atoll for the first major atomic bomb test after the war. There was no reference to how many would go, but some idea is given by the fact that they traveled by train in two Pullman cars and would not have to change trains during the trip.

Early in 1946 the back page of the SED News resembled a sheet of advertisements. However, it was devoted to public service to the men it was intended for. Each block carried information special to GIs about to be discharged, such as educational opportunities and available loans for homes, businesses, and farms, all on the GI Bill. Information about converting government insurance was also given, with necessary names and addresses to contact. [26]

So the secret newsletter, by and for a secret Army detachment, in the secret city of Oak Ridge did serve a purpose. If at first it only entertained, it later gave solid information about this community of enlisted men and their place in the order of Manhattan District things, and finally about things they needed to know to return to civilian life.

There was one sarcastic note in this final issue at this time of great uncertainty about the future of Oak Ridge: "For the latest project information, read Drew Pearson." [27] For as uncertain as things were for this secret city, many GIs had come to love it and

the country around it and wanted to make it home. Many took the chance and have never been sorry.

ENDNOTES

[1] SED News, Jan. 31, 1946, Vol. 1, No. 38, published every Friday by and for the men of the Special Engineer Detachment.

[2] Interviews with former SED members at the 40th anniversary reunion, Steiner-Bell Health Resort, Gatlinburg, Tenn., Aug. 1985.

[3] Interview with Joe Nisbett, Aug. 10, 1985, Gatlinburg reunion.

[4] "Dorm Dope Delights Detachment," SED News, Nov. 29, 1945, Vol. 1, No. 32, p. 1; also "History of SED," SED Yearbook, 1945.

[5] "The Atmosphere at Oak Ridge was as heavy with Mystery as a Dime Detective Novel, and up to the Bombing of Hiroshima Few GIs Working There Knew the Purpose of Their Secret Job," by Sgt. Merl Miller, Yank magazine, Oct. 26, 1945.

[6] SED News, Aug. 25, 1945, Vol. 1, No. 1, p. 3; also interview with Clare Dykes Zulliger, Aug. 10, 1985.

[7] SED News, June 30, 1945, Vol. 1, No. 9, p. 1.

[8] SED News, May 25, 1945, Vol. 1, No. 4, p. 1.

[9] Zulliger interview, op cit.

[10] SED News, July 13, 1945.

[11] Interview with Clifford Black, July 20, 1985; SED News, Aug. 4, 1945, Vol. 1, No. 14, p. 2; SED News, Sept. 21, 1945, Vol. 1, No. 21, p. 1.

[12] SED News, Oct. 12, 1945, Vol. 1, No. 24, p. 1; Dec. 6, 1945, Vol. 1, No. 33, p. 1.

[13] SED News, July 27, 1945, Vol. 1, No. 13, p. 1.

[14] SED News, Aug. 18, 1945, Vol. 1, No. 16, p. 3; Yank magazine, op cit; SED News, Oct. 12, 1945, Vol. 1, No. 24, p. 1.

[15] SED News, Sept. 7, 1945, Vol. 1, No. 19, p. 1.

[16] SED News, Sept. 28, 1945, Vol. 1, No. 22, p. 3.

[17] SED News, Oct. 12, 1945, Vol. 1, No. 24, p. 2.

[18] SED News, Sept. 7, 1945, Vol. 1, No. 19, p. 2.

[19] SED News, Sept. 1, 1945, Vol. 1. No. 18, p. 3.

[20] SED News, Sept. 28, 1945, Vol. 1, No. 22, p. 1; SED News, Oct. 5, 1945, Vol. 1, No. 24, pp. 7, 8, and SED Yearbook.

[21] SED News, Oct. 5, 1945, Vol. 1, No. 23, p. 1.

[22] SED News, Dec. 22, 1945, Vol. 1, No. 1, p. 1.

[23] SED News, Sept. 1, 1945, Vol. 1, No. 18, p. 1.

[24] Interviews with several former SED members at the 40th anniversary reunion, Gatlinburg, Aug. 1985.

[25] SED News, Jan. 31, 1946, Vol. 1, No. 38.

[26] SED News, Mar. 19, 1946, Vol. 2, No. 11, p. 1.

[27] Ibid.

10, 9, 8, 7 . . . . RANKED CRITERIA IMPORTANT IN LEADING UNIVERSITY JOURNALISM PROGRAMS

Robert C. Kochersberger Jr.

INTRODUCTION

This study of the leadership of college and university journalism programs was done with the intention of deriving a rank-ordered list of the importance of ten criteria to the leadership of such programs. A goal was to examine a number of categories of respondent for their differences in rank-ordering the criteria. Another goal was to be able to provide search committees and others involved in finding journalism program administrators with a consensus of the rankings for particular groups of respondents. For instance, a search committee at an institution with an accredited master's degree program would be able to see the way in which others from similar institutions ordered the criteria.

GENERATION OF CRITERIA

Central to the study was the development of the criteria themselves. This was done through a review of the literature (in journalism, in education, and in management in general) and through a telephone survey of those working in journalism programs. There is virtually nothing on journalism program administration and a great deal on educational administration in general. Existing criteria were modified in accordance with the expressed needs of journalism programs to derive the following ten criteria (with definitions used for the study):

--Leadership (ability to manage diverse group, sense of overview, willingness to delegate, high initiative, good coordinator).

--Keeping Cool (objective under stress, quick response to unexpected events in meetings, keeping sense of humor).

--Fundraising (going outside the institution to raise money from professional media and foundations).

--Creative Planning (novel planning and programming, innovative but not trendy, lots of ideas, good use of faculty and resources).

--Using Institution Resources (ensuring the unit gets its fair share from the institution, gets equipment money, adjunct faculty).

--Research Interests (researcher in own right, encourages and supports research by faculty, knowledge of research in own field).

--Outside Contacts (with media professionals for student internships, scholarships, speaking engagements; with other academics, with government offices).

--Personality (ethical, honest, fair, trustworthy, socially at ease, professional appearance, courteous to students and faculty).

--Terminal Degree (PhD).

--Professional Media Experience (enough time in a media setting to understand it from a pro's viewpoint, measured in years).

RESEARCH METHOD

A mail survey was used to gather the data. At the 165 American institutions having journalism programs that are affiliated with the Association of Schools of Journalism and Mass Communication, the president, the head of the unit (department or school, for instance) offering journalism as a field of study, and two associate or full

professors in the unit were contacted. There was a total of 655 persons contacted.

Each of them was sent a personalized advance letter two weeks before the questionnaire was mailed. One follow-up letter and questionnaire were sent to nonrespondents. Other techniques, including use of real postage stamps, handwritten signatures and postscripts, and personalized content, were also used. A total of 519 persons responded with usable questionnaires, for a return rate of 79.24 percent.

Each respondent was asked to rank, from most important (assigned a value of 10) to least important (1), the ten criteria. The questionnaire took the form of a 5.5-by-8-inch postcard, with the criteria and coding information printed on one side and the return address and postage stamp on the other. This format took little time from the respondents, and surely accounted for the high response rate. It must be acknowledged, of course, that such a questionnaire is necessarily limited in the amount of information it can handle, and it should be employed only when it is possible to exchange this for a high response rate.

Respondents were broken down into a number of subgroups to help in the analysis. The bases for this division were university position (faculty, administrator, or president), highest degree offered (BA, MA or PhD), and accreditation (whether any sequence in the program is accredited by the ACEJMC). PhD institutions were not broken down by accreditation, because the nonaccredited group would be too small to examine.

RESULTS

Considering all possible combinations, there were thirty-one subgroups of respondents, in addition to the base group of 519. Three of these groups, for instance, are presidents of BA-nonaccredited institutions, journalism administrators at MA-nonaccredited institutions, and faculty members at PhD institutions. Table 1 provides the basic breakdown of respondents.

Analysis of the data used the Statistical Package for the Social Sciences software and had three stages. The data in the study were ordinal in nature, which meant the nonparametric statistical techniques normally would be employed. However, because of the large number of responses and the influence of the Central Limit Theorem, it also was possible to use parametric techniques in addition to nonparametric. In fact, the two techniques support one another in this study.

The first stage of analysis was the simple computation of mean ranks and standard deviations. This was done for the entire group, and then for the subgroups, to derive ordinal rankings for each of them. These rankings (they could be considered analogous to reverse finishing order in a foot race), for the principal groups are in Appendices A through E.

The Analysis of Variance with SNK

The second stage of the analysis was the analysis of variance, with the Student-Newman-Keuls (SNK) range procedure. These were used to look for significant differences between and among various subgroup combinations. Sixteen such comparisons were possible. For each combination of subgroups, each criterion was examined

TABLE 1

TOTAL RESPONSE MATRIX

Count Row % Col % total %	Faculty member	Admnstrtr	Prsdnt	Row total
BA-ACC	43	24	15	82
	52.4	29.3	18.3	15.8
	16.4	16.0	14.0	
	8.3	4.6	2.9	
BA-NONACC	84	49	42	175
	48.0	28.0	24.0	33.7
	32.1	32.7	39.3	
	16.2	9.4	8.1	
MA-ACC	71	41	27	139
	51.1	29.5	19.4	26.8
	27.1	27.3	25.2	
	13.7	7.9	5.2	
MA-NONACC	30	18	12	60
	50.0	30.0	20.0	11.6
	11.5	12.0	11.2	
	5.8	3.5	2.3	
PhD	34	18	11	63
	54.0	28.6	17.5	12.1
	13.0	12.0	10.3	
	6.6	3.5	2.1	
Column total	262 50.5	150 28.9	107 20.6	519 100.0

individually to make it possible to say, for particular subgroups and particular criteria, that significant differences do or do not exist.

For instance, consider criterion Research Interests and the subgroup made up of BA, MA, and PhD institutions. The analysis of variance revealed significant difference (F=7.186, p=.0008, df=2, 516). The SNK procedure is used to describe where the significant differences lie in an analysis of variance by combining like groups into subsets. In this example, SNK put BA and MA institutions together in a subset with lower mean rank and PhD institutions in a subset by itself with a higher mean rank. In other words, on criterion Research Interests, the significant difference exists between BA and MA institutions as a pair (they were not significantly different) and PhD institutions. The fact that all respondents at PhD institutions consider research more important than at BA and MA institutions makes intuitive sense.

In the same way, for criterion Professional Media Experience, the SNK procedure put BA, MA, and PhD institutions into three separate subsets, indicating that each type of university position was significantly different from each other, accounting for large F-value (13.538) and small p-value (.0001).

Examining the total response for differences according to highest degree offered, (BA vs. MA vs. PhD institutions) there were significant differences for criteria Leadership (F=3.384, p=.0347), Fundraising (F=15.305, p=.0000), Research Interests (F=7.186, p=.0008), Outside Contacts (F=3.680, p=.0259), and Professional Media Experience (F=13.538, p=.0000).

Examining the results for differences according to university

position (faculty, administrators, presidents) showed significant differences for criteria Keeping Cool (F=4.501, p=.0115), Fundraising (F=5.194, p=.0058), Creative Planning (F=4.134, p=.0166), Using Institution Resources (F=15.696, p=.000), Research Interests (F=8.452, p=.0002), and Terminal Degree (F=5.079, p=.0065).

The study also analyzed results according to a combination of university position and highest degree offered. For instance, at BA institutions, it was possible to compare faculty, administrators, and presidents for their rankings of the criteria. For BA institutions, significant differences existed for criterion Keeping Cool (F=3.258, p=.0401), Fundraising (F=3.96, p=.0210), Using Institution Resources (F=12.292, p=.0000), Research Interests (F=6.076, p=.0026), and Terminal Degree (F=5.569. p=.0043). For all these, df=2, 254.

At MA institutions, faculty, administrators, and presidents showed significant differences for criterion Using Institution Resources (F=5.067, p=.0072, df=2, 196).

At PhD institutions, there was remarkable agreement among faculty, administrators, and presidents on the ranking of the criteria: there were no significant differences at all.

Generally speaking, the SNK procedure paired faculty and administrators in one subset and placed presidents by themselves in another.

The study next examined returns according to the position of the respondent (faculty, administrator, president), including all institutions. First, faculty members differed on criteria Fundraising (F=8.227, p=.0003), Research Interests (F=3.152,

p=.0444), and Professional Media Experience (F=5.161, p=.0063). For these, df=2, 259.

The study next looked at all administrators who responded from the three groupings of institution (BA, MA, PhD). The administrators, across all institutions, showed the most uniformity of the three "university position" groups, differing significantly only on criterion Professional Media Experience (F=3.804, p=.0245, df=2, 147).

Next examined were presidents at all three types of institution to look for differences among the BA, MA and PhD levels. There were significant differences (df=2, 104) on criteria Fundraising (F=4.206, p=.0175), Research Interests (F=3.269, p=.0420), and Professional Media Experience (F=5.567, p=.0050).

Generally speaking, where significant differences existed, the SNK procedure paired respondents from BA and MA institutions in one subset and placed respondents from PhD institutions in another.

The study next began to incorporate accreditation in the analysis. At this stage, then, comparisons were made for all respondents (faculty, administrators, and presidents), broken down by BA-accredited, BA-nonaccredited, MA-accredited, MA-nonaccredited, and PhD institutions.

There were significant differences for criteria Leadership (F=4.049, p=.0030), Fundraising (F=8.182, p=.0000), Research Interests (F=4.878, p=.0007), Outside Contacts (F=2.720, p=.0290), Terminal Degree (F=7.382, p=.000), and Professional Media Experience (F=7.118, p=.0000). For these, df=4, 514.

For these divisions, the SNK procedure derives a number of subset combinations. In general, BA-accredited and BA-nonaccredited

institutions appear in the same subsets, as do MA-accredited and MA-nonaccredited institutions, indicating little differences between these subdivisions.

Other Analysis of Variance

There were a number of other analyses of variance performed, but all will not be reported here. They further broke down respondents according to university position, highest degree offered, and accreditation. Of greater interest are those ANOVAs already reported.

The Kendall Coefficient of Concordance

The last analysis technique applied was Kendall's Coefficient of Concordance (W). So far in this paper, analysis of variance has been used to pinpoint some areas in which significant differences existed between and among various subgroups. It is also useful, however, to be able to examine each subgroup individually, to see how agreed its members are on the group's ranking of the criteria. Kendall's W, as a measure of homogeneity of group rankings, permits such examination. It is possible to consider it as an index of the divergence of the actual agreement shown in the data from the maximum possible (perfect) agreement. When W is deemed significant, it is possible to conclude with considerable assurance that the agreement among the rankers is higher than it would be by chance. According to Siegel (1956, p. 237), a significant value of W may be interpreted as meaning that the observers or judges are applying essentially the same standard in ranking the objects (in this case, criteria) under study. It must be cautioned at this point that while a significant W indicates agreement, it does not indicate

correctness. In other words, the rankers may be agreed but wrong in ranking the objects.

This caveat notwithstanding, there was remarkable agreement among the various subgroups in this study; for every subgroup, W was significant at the 0.001 level. Every possible division of respondents, from largest (all 519 at once) to smallest (11 presidents of PhD institutions) was significantly agreed in its ranking of the criteria. As noted earlier, there were differences in rank-ordering from subgroup to subgroup; this finding relates to the agreement within each of those individual groups.

CONCLUSION

These findings paint a new picture of views of the administration of journalism programs at colleges and universities. They further suggest that such administration could bear further research scrutiny.

Some of the findings make intuitive sense. It is more likely for BA and MA institutions to be like one another than like PhD institutions. Faculty members and journalism program administrators are more likely to side with one another than with presidents. Research interests are more valued by PhD institutions than by BA institutions while the opposite is true for professional media experience. MA institutions do seem to straddle a line between BA- and PhD-level study.

Less easy to understand are the last and next-to-last positions of research interests and the terminal degree. Even PhD institutions put the PhD last. There are two possible explanations. The first is that the PhD is considered so basic a component of the

administrator (like, "Is he breathing?") that it's not a serious issue. The second is that the respondents truly believe that the PhD is not important in administration. This belief may be the more accurate, as teaching and scholarship—the traditional criteria for academic positions—become less relevant to administration in academe. As the study indicates, "Leadership" is highly relevant for this type administration, and it is one bearing some of that further study.

This is especially so because of its intangible nature (and the intangible nature of some of the other important criteria). While it's not hard to tell a search committee to look for someone with strong leadership, the ability to creatively plan, and a good personality, it's something entirely different to attempt to tell the search committee how to establish whether these exist in a particular person.

Until the development of instruments to measure these qualities in budding journalism program administrators, then, this ranked list of criteria would best serve as a way of helping a search committee order its thinking. The criteria would suggst questions that could be asked of candidates' references, or questions of the candidates themselves. They could help the search committee devise its own ranked list. They could help search committees in terms of Affirmative Action/Equal Opportunity guidelines, which require that all candidates for positions be asked the same questions.

These are but suggestions, and it is likely that the ordered lists could be used or modified in any number of ways according to the needs of the institutions using them. Further study of the

administration of journalism programs will refine and improve the utility of these lists to institutions searching for leaders of their journalism programs.

REFERENCE

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APPENDIX A

RANKING OF CRITERIA BY UNIVERSITY POSITION
ACROSS ALL INSTITUTION CATEGORIES

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank
Faculty	9.3015 (1.5202) 10	5.3244 (2.4048) 5	4.1794 (2.2999) 3	6.7893 (2.3654) 7	6.6412 (2.1623) 9	3.2443 (1.9042) 2	5.1489 (1.9507) 4	6.6031 (2.3083) 6	2.6718 (2.3650) 1	5.4962 (2.8172) 8
Admnstrtr	9.3067 (1.4561) 10	5.3400 (2.5720) 6	4.1200 (2.2463) 3	6.8400 (2.2646) 9	6.5933 (2.2197) 7	3.3467 (1.8609) 2	5.1667 (1.8910) 5	6.6533 (2.2997) 8	2.7000 (2.4406) 1	4.9333 (2.6637) 4
Presdnt	9.4860 (1.2765) 10	4.5234 (2.5229) 4	3.3738 (2.1214) 1	7.0935 (2.2383) 9	5.2897 (2.2571) 6	4.1495 (2.2183) 3	5.2617 (1.9779) 5	6.6168 (2.3498) 8	3.5327 (2.7103) 2	5.6729 (2.7772) 7

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

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APPENDIX B

RANKING OF CRITERIA BY HIGHEST DEGREE OFFERED
ACROSS ALL JOB CATEGORIES

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
BA	9.1946 (1.6936)	5.3113 (2.5365)	3.4903 (1.9407)	6.7510 (2.2309)	6.3658 (2.2005)	3.2724 (1.8655)	5.4086 (1.8393)	6.6732 (2.3087)	2.6693 (2.3823)	5.8638 (2.7202)
	10	4	3	9	7	2	5	8	1	6
MA	9.4221 (1.2320)	5.0452 (2.4563)	4.3714 (2.4066)	6.5126 (2.4306)	6.2714 (2.3305)	3.4322 (2.0236)	4.9598 (1.9895)	6.6535 (2.3474)	3.1759 (2.6293)	5.1859 (2.7672)
	10	5	3	8	7	2	4	9	1	6
PhD	9.6825 (0.8581)	4.9365 (2.4487)	4.9683 (2.5461)	6.7937 (2.3702)	6.5238 (2.2779)	4.3175 (2.1689)	4.9206 (2.0659)	6.3016 (2.2044)	2.6190 (2.3170)	3.9365 (2.4749)
	10	5	6	9	8	3	4	7	1	2

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

APPENDIX C

RANKING OF CRITERIA BY UNIVERSITY POSITION

BY HIGHEST DEGREE OFFERED

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
BA faculty	9.1181 (1.8798)	5.5197 (2.4908)	3.6535 (1.8998)	6.4488 (2.3084)	6.7953 (2.1019)	3.0551 (1.7920)	5.4016 (1.8399)	6.6142 (2.2819)	2.4488 (2.2562)	5.7449 (2.6586)
	10	5	3	7	9	2	4	8	1	6
BA admnstrtr	9.2329 (1.4484)	5.5432 (2.5770)	3.6986 (2.0459)	7.0411 (2.1437)	6.5616 (2.0547)	3.0685 (1.6777)	5.3562 (1.7350)	6.6986 (2.2465)	2.2425 (2.1228)	5.4658 (2.8239)
	10	6	3	9	7	2	4	8	1	5
BA prsdnt	9.3158 (1.5602)	4.5614 (2.4858)	2.8596 (1.7872)	7.0526 (2.1080)	5.1579 (2.1941)	4.0175 (2.0830)	5.4912 (1.9922)	6.7719 (2.4786)	3.5789 (2.7578)	6.1930 (2.7687)
	10	4	1	9	5	3	6	8	2	7
MA faculty	9.4455 (1.0533)	5.1485 (2.3681)	4.4851 (2.4150)	6.2772 (2.4459)	6.4158 (2.1830)	3.2376 (1.9139)	4.9802 (2.0687)	6.6535 (2.4018)	3.0099 (2.5000)	5.3465 (2.9409)
	10	5	3	7	8	2	4	9	1	6
MA admnstrtr	9.2373 (1.6331)	5.2373 (2.2619)	4.4407 (2.4231)	6.4746 (2.4869)	6.6949 (2.3799)	3.4576 (1.9855)	5.0169 (1.9163)	6.6949 (2.4159)	3.1017 (2.6954)	4.6441 (2.4266)
	10	6	3	7	9	2	5	8	1	4

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

TABLE 4 (continued)

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank
MA prsdnt	9.6410 (0.9028) 10	4.4872 (2.5013) 4	3.8205 (2.3494) 2	7.1795 (2.2346) 9	5.2564 (2.3921) 6	3.8974 (2.3147) 3	4.8205 (1.9313) 5	6.5897 (2.1487) 8	3.7179 (2.8465) 1	5.5897 (2.7211) 7
PhD faculty	9.5588 (1.0785) 10	5.1176 (2.1849) 5	5.2353 (2.8076) 6	6.5000 (2.3900) 8	6.7353 (2.3265) 9	3.9706 (2.1550) 2	4.7059 (1.9153) 4	6.4118 (2.1759) 7	2.5000 (2.2995) 1	4.2647 (2.6777) 3
PhD admnstrtr	9.8333 (0.5145) 10	4.8889 (2.6544) 5	4.7778 (2.2111) 4	7.2222 (1.8960) 9	6.3889 (2.3549) 8	4.1111 (1.9967) 3	4.8889 (2.3983) 6	6.3333 (2.2229) 7	2.8333 (2.6844) 1	3.7222 (2.2959) 2
PhD prsdnt	9.8182 (0.4045) 10	4.4545 (3.0121) 3	4.4545 (2.2962) 4	7.0000 (3.0322) 9	6.0909 (2.1192) 8	5.7273 (2.1019) 6	5.6364 (1.9633) 5	5.9091 (2.4271) 7	2.6364 (1.3586) 1	3.2727 (2.1019) 2

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

APPENDIX D

RANKING OF CRITERIA
BY ACCREDITED VS. NON-ACCREDITED INSTITUTION

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
BA Acc.	9.4878 (1.1679)	5.5488 (2.4952)	3.5366 (1.9764)	6.6463 (2.2354)	6.3537 (2.1452)	3.4878 (1.9829)	5.1898 (1.9814)	6.5732 (2.3149)	2.5854 (2.3357)	5.6707 (2.7624)
	10	5	3	9	7	2	4	8	1	6
BA Non-acc.	9.0571 (1.8776)	5.2000 (2.5551)	3.4686 (1.9292)	6.8000 (2.2335)	6.3714 (2.2320)	3.1714 (1.8049)	5.5486 (1.7573)	6.7200 (2.3110)	2.7086 (2.4094)	5.9543 (2.7024)
	10	4	3	9	7	2	5	8	1	6
MA Acc.	9.5612 (1.0572)	5.0935 (2.4254)	4.4892 (2.2275)	6.6259 (2.4355)	6.4964 (2.2853)	3.2590 (1.9199)	5.0288 (1.9260)	6.7482 (2.1165)	2.6259 (2.2467)	5.0719 (2.7601)
	10	6	3	8	7	2	4	9	1	5
MA Non-acc.	9.1000 (1.5260)	4.9333 (2.5436)	4.0000 (2.7679)	6.2500 (2.4190)	5.7500 (2.3569)	3.8333 (2.2107)	4.8000 (2.1376)	6.4333 (2.8186)	4.4500 (3.0052)	5.4500 (2.7887)
	10	5	2	8	7	1	4	9	3	6

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Terminal Degree, v9=Terminal Degree, v10=Professional Media Experience

APPENDIX E

RANKING OF CRITERIA BY UNIVERSITY POSITION
BY HIGHEST DEGREE OFFERED
BY ACCREDITATION VS. NON-ACCREDITATION

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
BA-acc. faculty	9.4186 (1.3668)	5.9767 (2.3451)	3.5166 (1.9563)	6.4651 (2.2291)	6.6977 (2.0533)	3.1395 (1.8719)	4.8140 (1.9056)	6.5166 (2.1533)	2.4419 (2.0965)	6.0233 (2.8990)
	10	5	3	7	9	2	4	8	1	6
BA-acc admnstrtr	9.4167 (1.0598)	5.7500 (2.4716)	4.1250 (2.1123)	6.6250 (2.3470)	6.0000 (2.1869)	3.5417 (1.8645)	5.5417 (2.0212)	6.5417 (2.7023)	2.7083 (2.9263)	4.7500 (2.6580)
	10	6	3	9	7	2	5	8	1	4
BA-acc prsdnt	9.8000 (0.5606)	4.0000 (2.5071)	2.6667 (1.5430)	7.2000 (2.0771)	5.9333 (2.3515)	4.4000 (2.2928)	5.2667 (2.1202)	6.8000 (2.2424)	2.8000 (2.0424)	6.1333 (2.2949)
	10	3	1	9	6	4	5	8	2	7
BA-nonacc faculty	8.9643 (2.0852)	5.2857 (2.5439)	3.7262 (1.8779)	6.4405 (2.3611)	6.8452 (2.1368)	3.0119 (1.7596)	5.7024 (1.7409)	6.6667 (2.3559)	2.4524 (2.3460)	5.9048 (2.5442)
	10	4	3	7	9	2	5	8	1	6
BA-nonacc admnstrtr	9.1429 (1.6073)	5.4286 (2.6458)	3.4898 (2.0013)	7.2449 (2.0159)	6.8367 (1.0509)	2.8367 (1.5458)	5.2653 (1.5913)	6.7755 (2.0131)	2.1633 (1.5988)	5.8163 (2.8626)
	10	5	3	9	8	2	4	7	1	6

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

APPENDIX E (continued)

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
BA-nonacc prsdnt	9.1429 (1.7610)	4.7619 (2.4773)	2.9286 (1.8792)	7.0000 (2.1413)	4.8810 (2.1092)	3.8810 (2.0146)	5.5714 (1.9648)	6.7619 (2.5833)	3.8571 (2.9431)	6.2143 (2.8673)
	10	4	1	9	5	3	6	8	2	7
MA-acc faculty	9.5070 (0.9239)	5.0986 (2.3854)	4.7183 (2.2689)	6.3239 (2.4423)	6.6197 (2.2575)	3.0563 (1.7799)	5.1127 (1.9607)	6.8451 (1.9097)	2.8620 (2.2224)	5.0563 (2.0701)
	10	5	3	7	8	2	5	9	1	4
MA-acc admnstrtr	9.4634 (1.4680)	5.3659 (2.5274)	4.7317 (2.2025)	6.5610 (2.4398)	6.8780 (2.1817)	3.2195 (1.8777)	5.0244 (1.9428)	6.9780 (2.3685)	2.7415 (1.9825)	4.8366 (2.2594)
	10	6	4	7	9	2	5	8	1	3
MA-acc prsdnt	9.8519 (0.4560)	4.6667 (2.4019)	3.5185 (1.9488)	7.5185 (2.2765)	5.5926 (2.3576)	3.8519 (2.2652)	4.8148 (1.8613)	6.2963 (2.2500)	2.9630 (2.4413)	5.9259 (2.4487)
	10	4	2	9	6	3	5	8	1	7
MA-nonacc faculty	9.3000 (1.3170)	5.2667 (2.3625)	3.9333 (2.6901)	6.1667 (2.4925)	5.9333 (1.9464)	3.6667 (2.1709)	4.6667 (2.3094)	6.2000 (2.3842)	3.8333 (2.7428)	6.0333 (2.5255)
	10	5	3	8	6	1	4	9	2	7

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

APPENDIX E (continued)

Category	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank	Mean (S.D.) Rank
MA-nonacc admnstrtr	8.7222 (1.9037) 10	4.9444 (2.6892) 5	3.7778 (2.8192) 1	6.2778 (2.6525) 8	6.2778 (2.8035) 7	4.0000 (2.1693) 2	5.0000 (1.9097) 6	6.2778 (2.5392) 9	4.8333 (3.3122) 3	4.8889 (2.8261) 4
MA-nonacc prsdnt	9.1667 (1.4035) 10	4.0833 (2.7784) 2	4.5000 (3.0600) 3	6.4167 (2.0207) 8	4.5000 (2.3932) 4	4.0000 (2.5226) 1	4.8333 (2.1672) 6	7.2500 (1.8153) 9	5.4167 (3.0588) 7	4.8333 (3.2706) 5

v1=Leadership, v2=Keeping Cool, v3=Fundraising, v4=Creative Planning, v5=Using Institution Resources, v6=Research Interests, v7=Outside Contacts, v8=Personality, v9=Terminal Degree, v10=Professional Media Experience

PROFESSIONALISM AND PAGE-ONE CONTENT OF TENNESSEE DAILIES

Michael W. Singletary and Normand Turgeon

This research explored the relationship between membership in selected professional journalism organizations and page-one content of 27 Tennessee daily newspapers. The working hypothesis was that level of professionalism, defined as the number of memberships in professional organizations, would differentiate the kind of gratification offered newspaper readers through news choices. Specifically, newspapers characterized by greater professionalism should offer more of what Schramm called "delayed reward" news—public affairs, economics, health, science, education, social problems, while others should offer more "immediate reward" news—crime-corruption, accident-disaster, human interest, social events, hostage-terrorism. [1] (The hypothesis assumes that professionals will have a greater concern for the public's "need to know," while others will have a greater concern for a newspaper's marketability.)

The research topic has implications for the practice of journalism and for instruction in journalism. Academics teach that professionalism is a goal; practitioners generally strive for professionalism, although some, no doubt, would deny outright that journalism is a profession. We can ask, rhetorically, if professionalism is a goal, in what way is it manifest in the product, the newspaper? In the research literature, there have been a few studies to demonstrate the relationship between professionalism and

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practice. Coldwell studied news photos as indicators of professionalism. [2] He found that the staffs of newspapers identified as "good" were higher on professionalism than those of "bad" papers. The photojournalists on the "good" papers were more likely to want to influence the public's thinking, and to want to have an influence on their own organization.

Idsvoog and Hoyt [3] inferred performance by asking 81 Wisconsin reporters to evaluate two film stories. Both stories included numerous errors and instances of poor practice. Based on a checklist, the newsmen were classified a priori as low, medium or high professional. As expected, high professional were more likely to identify errors and to seek improvement of the stories.

Weinthal and O'Keefe reported that news people who evidence higher professional orientation appeared to be (among other things) more likely to belong to professional organizations. [4] They also reported that high professionals felt a news reporter's role was to work for an improved society. This could be interpreted as support for the idea that high-professionals would select more news of the delayed reward type (public affairs news rather than crime-violence news), since delayed reward is issue oriented rather than event oriented.

In other research, Ward has reported that professionalism in an advertising agency was related to employee ethics and evaluative judgments. [5] Eapan found professionalism among Indian journalists was related to ethical judgments and to interest in journalism education. [6] The latter two citations can be seen as support for the idea that subscription to a code of ethical practice would differentiate practitioners.

Based on findings such as those reported above, McLeod concluded that newspapers with a higher level of professionalism "do indeed have better performance records than do other newspapers." [7]

The question we are asking in the present paper is this: Can the performance of high-professional newspapers (when professionalism is defined in terms of professional memberships) be distinguished from the performance of others on the basis of the reward values offered readers via news choices?

The immediate and delayed reward categories Schramm offered in 1949 have been used for content analysis in several published studies. Reliability has been variable, but generally within satisfactory limits. The idea of reward is simple: all news offers one of the two types of reward, immediate or delayed. The former refers to news of interest but of little lasting value. The latter refers to news of less immediate interest, but of more lasting value. The reward concept is not without its critics and its deficiencies. For instance, Kay has observed that some people read a crime story because it is exciting (immediate reward) but others read it to learn to prevent crime. Schramm recognized the point and conceded the idea was not faultless.

The professional organizations studied were the American Newspaper Publishers' Association; The Society of Professional Journalists, Sigma Delta Chi; the American Society of Newspaper Editors; and the AP Managing Editors. Each has a voluntary code of ethics. Membership rosters of each organization were obtained, and a membership score for each of 27 newspapers was tabulated. The count was limited to editors, since staffs could not be identified.

Editors were identified through E&P yearbook. It was reasoned that editors, far more than staff, would be responsible for story selection, especially on page one, and so the inability to identify staff in professional organizations was not considered a crucial weakness.

METHOD

The intent was to study the news of all Tennessee daily newspapers (see Table 1) for three weeks and to test the hypothesis that news content is related to membership in selected professional organizations. Editor memberships numbered 0 at several small papers to 12 on one paper. Some memberships (e.g., ANPA) were institutional memberships rather than individual memberships, but not all papers were members. The study was limited to page one because (a) evaluation of all pages would exceed the capacity of our workers; (b) the front page, as the showcase for the papers' news, should reflect professional values.

Five Ph.D. students served as coders; each examined 5-6 newspapers for a three-week period, Aug. 8-28, 1984. After training, each coder categorized each story in the assigned papers. Schramm's content categories were bolstered by a separate content category system suggested by Kline. [8] These categories are presented in Table 2. When initial coding was complete, each coder served as a reliability checker for one other coder. Reliability was defined as the averge percentage agreement among pairs of coders. Reliability for the major categories (immediate reward and delayed reward) was 95%; reliability for minor categories (subcategories of major categories; e.g., crime, accident, disaster, etc.) was 89.2%.

Table 1. List of the Newspaper of This Study

Dailies	Circulation Category S=Small L=Large	Ownership G=Group N=Non-group
1. Daily Post-Athenian	S	N
2. Bristol Herald Courier	L	N
3. Chattanooga News-Free Press	L	N
4. Chattanooga Times	L	N
5. The Leaf Chronicle (Clarksville)	L	G
6. Cleveland Daily Banner	S	G
7. The Daily Herald (Columbia)	S	N
8. Cookeville Hearald Citizen	S	N
9. State Gazette (Dyersburg)	S	G
10. Elizabethton Star	S	N
11. The Greeneville Sun	S	N
12. The Jackson Sun	L	N
13. Johnson City Press-Chronicle	L	G
14. Kingsport Times-News	L	G
15. The Knoxville, Journal	L	G
16. The Knoxville News-Sentinel	L	G
17. The Lebanon Demoncrat	S	N
18. The Daily Times (Maryvile)	L	N
19. The Commercial Appeal (Memphis)	L	G
20. Citizen Tribune (Morristown)	L	N
21. The Daily News Journal (Murfreesboro)	S	N
22. Nashville Banner	L	G
23. The Tennessean (Nashville)	L	G
24. The Oak Ridger	S	N
25. The Paris Post Intelligencer	S	N
26. Shelbyvile Times-Gazette	S	N
27. Harriman City Daily Messenger	S	N

Table 2. Content Category System

Immediate Reward	Delayed Reward
V1 - Crime and corruption	V7 - Public affair
V2 - Accident and disaster	V8 - Economic matter
V3 - Sport and recreation	V9 - Social problem
V4 - Social events	V10 - Science
V5 - Human interest	V11 - Education
V6 - Terrorism	V12 - Health

Table 3. Level of Professionalism and Type of Reward Value of News

	Level of Professionalism I	Level of Professionalism II	Level of Professionalism III
Delayed Reward News	510[2] / 3.37[3]	559 / 3.12	423 / 2.94
Immediate Reward News	510 / 3.37	579 / 3.21	436 / 3.03

(X = .001, df = 2, p = 1.00)

1. Level of Professionalism I, II, III, have respectively n = 9, n = 10, n = 8 newspapers. Moreover since some newspaper publish five days a week, others six or seven, the total number of issues content analyzed for level of professionalism I, II, III were 157, 180, and 150 respectively.

2. Represents the total frequency.

3. Represents the average number of delayed or immediate reward stories per day for newspapers of different level of professionalism.

RESULTS

Frequency of immediate and delayed reward news was calculated for three levels of newspaper professionalism; low = 0-1 [numerals refer to number of memberships in professional trade organizations]; medium = 2-5; high = 6-12. Each level of professionalism included 8-10 newspapers. Table 3 indicates the frequencies (total and average per day per newspaper) or delayed and immediate type of news for level of professionalism I, II, and III respectively. It also indicates that the principal hypothesis of an association between "Level of Professionalism" and "Type of Reward News" is not supported. High-professional newspapers did not use significantly more immediate or delayed reward news; professionalism is not manifest in the reward qualities of news choices. Moreover, it is interesting to note from this table that the higher the level of professionalism of the newspaper the smaller the number of delayed and immediate reward news it publishes a day. However, the proportion between delayed and immediate reward news is about the same (50%/50%) for each level of professionalism.

The hypothesis rested on the concept that immediate reward involved one type of news and that delayed reward involved another. With data arrayed in a matrix of 27 newspapers and 12 categories of news (6 each for immediate and delayed), an R factor analysis (principal components method) was run. The analysis developed 5 factors (according to the eigenvalue > 1 criterion), not 2, indicating existence of underlying mathematical relationships not accounted for in the concept. The results are presented in Table 4. The five-factor solution explains 71% of the variance while the

Table 4. Results of the R-Factor Analysis.

INITIAL FACTOR METHOD: PRINCIPAL COMPONENTS

EIGENVALUES OF THE CORRELATION MATRIX

	1	2	3	4	5	6
EIGENVALUE	2.583536	1.854473	1.696903	1.283397	1.091206	0.994422
DIFFERENCE	0.729063	0.157570	0.413507	0.192191	0.096784	0.259072
PROPORTION	0.2153	0.1545	0.1414	0.1069	0.0909	0.0829
CUMULATIVE	0.2153	0.3698	0.5112	0.6182	0.7091	0.7920

	7	8	9	10	11	12
EIGENVALUE	0.735350	0.635495	0.452685	0.392864	0.205360	0.074310
DIFFERENCE	0.099855	0.182810	0.059821	0.187504	0.131050	
PROPORTION	0.0613	0.0530	0.0377	0.0327	0.0171	0.0062
CUMULATIVE	0.8533	0.9062	0.9440	0.9767	0.9938	1.0000

5 FACTORS WILL BE RETAINED BY THE NFACTOR CRITERION

FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
V1	-0.16810	0.41503	-0.72899	-0.01576	0.19868
V2	0.31627	0.27547	0.61782	0.16395	0.25928
V3	0.03965	0.82869	0.14846	-0.00519	0.08232
V4	0.77048	-0.11040	0.19852	0.26994	0.01325
V5	-0.47565	-0.36981	0.29976	0.40224	-0.27887
V6	-0.00438	-0.70613	0.16111	-0.33315	0.52229
V7	-0.52945	0.08026	0.34324	0.36433	0.51862
V8	0.11473	-0.32409	-0.34479	0.46862	-0.30176
V9	0.82476	0.13443	-0.09821	-0.09351	0.08328
V10	-0.11079	0.29189	0.10547	0.54447	-0.05250
V11	0.80248	-0.16486	0.02107	0.21962	0.01369
V12	-0.06170	0.17354	0.59044	-0.45257	-0.50705

first two factors explain only 37% of the variance. The five factors are not interpretable per se.

Another possibility was that our designations of high and low professionalsim were inappropriate. (Our division of newspapers had been largely intuitive and purposive, a convenient division to achieve equal n's). We re-analyzed the matrix with Q-factor analysis. The intent was to confirm whether newspaper loaded on factors distinguished by professional memberships. Three factors were generated, but not along lines suggested by level of professional memberships. Each factor included newspapers of low, medium and high professional membership. Newspapers in each factor were identified by geography (location in state), wire services employed, circulation, and date of origin. No useful pattern was found. Hence, news choices might be predicted by some underlying dimension of newspaper types, but not along lines suggested by the hypothesis.

To extend this idea, we constructed two new variables and ran discriminant analysis. The new variables were circulation (small and large) and ownership (group vs. non-group).

First, we expected that small circulation newspapers (representing predominatly rural areas) would have a different pattern of news than the larger newspapers (representing mainly urban areas). The separation between small and large newspapers was made by using the median of the circulation. Newspapers with less than 16,000 of paid circulation were classified as small and the remaining as large. A discriminant analysis was then performed on those two <u>a priori</u> groups. Results are presented in Table 5. It is interesting to note concerning to univariate statistic that V4

Table 5. Results of the Discriminant Analysis on Small and Large Newspapers.

Univariate Statistics					
Type of News	Overall Mean	Class Means Small	Large	F	Prob 6TF
V1	1.00*	0.93	1.07	1.149	.294
V2	0.35	0.36	0.34	0.026	.873
V3	0.27	0.34	0.29	0.287	.597
V4	0.27	0.40	0.14	5.554	.027
V5	1.09	1.21	0.98	0.993	.329
V6	0.11	0.10	0.12	0.093	.763
V7	1.62	1.65	1.58	0.077	.783
V8	0.62	0.71	0.53	2.833	.105
V9	0.16	0.17	0.16	0.014	.906
V10	0.08	0.11	0.16	0.469	.500
V11	0.52	0.69	0.37	3.562	.071
V12	0.10	0.12	0.09	0.661	.424

Multivariate Statistics

Canonical Correlation	Canonical R-Squared	F Stat.	Num DF	DEN DF	Prob F
0.7695	0.5921	1.6933	12	14	0.1726

*Average type of news per day per newspaper.

(social events) is significant at p=.027. [9] Small newspapers publish more social events news. Moreover, results indicate a trend for more "economic matter" (V8) and "education" (V11) type of news in small newspapers. [10] However, the multivariate statistic indicates that the discriminant function is not significant (F=1.693, p=.1726); there is no linear combination that significantly discriminates between these two a priori groups.

Another discriminant analysis was run on the group/non-group ownership characteristics. It was believed that group-owned newspapers could have policies reflecting on the choice of news. The results of the univariate statistics are non-significant. The multivariate statistic also is non-significant (F=.7798, p=.6635). Again, no discriminant function was found.

CONCLUSION

This analysis seems to indicate that level of membership in professional code organizations does not predict news choices when choices are defined in terms of reward values to readers. In other words, we have been unable to demonstrate that level of professionalism makes for different news choices on page one of Tennessee newspapers. It would seem that news choices, instead, are dictated by some more primary and pervasive news consideration such as marketing experience, the AP news budget, socialization among news staffs, or the like. Details of the role of professionalism in newspaper content remain to be identified and analyzed.

DIRECTION FOR FUTURE STUDIES

First, a randomized sample of all United States dailies should be used. Second, instead of picking up two or three weeks in a row, researchers should randomly select 15 to 20 days during a year. They would then avoid repetitive events such as the Olympic Games or a terrorist attack. Finally, there is a need for a different operationalization of the level of professionalism construct.

ENDNOTES

[1] Schramm, Wilbur, "The Nature of News," Journalism Quarterly, 26:259-69, 1949.

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[8] Kline, Stephen, "The Categorical Imperative: On the basis of content analysis," working papers in Communications, McGill University, Montreal, 1982.

[9] This variable would not be considered significant with a family type test.

[10] The strength of the trend would be weaker had a family type test been done.